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ABSTRACT

AUDIOVISUAL MATERIALS FOR USE WITH THE INDIVIDUALLY PRESCRIBED INSTRUCTION (IPI) MATHEMATICS PROGRAM ARE LISTED. THE GUIDE GIVES THE TYPE OF AID, TITLE, CONTENT, AND SOURCE. THE AIDS ARE LISTED BY THE IPI OBJECTIVE WHICH THEY ARE TO ILLUSTRATE. (JY)

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INDIVIDUALLY PRESCRIBED INSTRUCTION

Mathematics Program

AUDIO-VISUAL SOURCES

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AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-NUM-1	FS	"Arithmetic Relationships (Comparing)"	"What are some of the words used? We will use many words to compare children at the playground. We will use many other words to compare things we have or find, and things we do."	Your Lesson Plan Filmstrips #A-140 Y.L.P. Materials Corporation Narrative on FS.
A-NUM-1	FS	Arithmetical Concepts	(Several frames are ahead of this objective, but most of the FS is appropriate.) ....indefinite quantitative and comparative relationships....	Work and Play with Numbers Series - #27 Eye Gate House, Inc. #27A Narrative on FS; Teachers Manual gives nature and purpose of the FS.
A-NUM-1	TP	Elementary Arithmetic Vocabulary	(Pictures depict a situation which is then named in large letters -- under, shortest, fewer, next, top, etc.) First, under, pair, below, half, shortest, up, after, above, group, longer, more, top, over, fewer, down, before, bottom, last, next.	Elementary Arithmetic Series United Transparencies, Inc. Cat. No. UTM 3866-2 Set EA-S2 Includes 20 Projectuals (Ma-2100 to Ma-2119)
A-NUM-1	TP	Mathematics Readiness	(Each projectual can be used with the appropriate objective(s). Numerals and their names; writing the numerals 1 through 5; writing the numerals 6 through 10; counting by 2's; learning to count by 5's and 10's; simple addition (horizontal); simple addition (vertical or columnar) simple subtraction (horizontal); simple subtraction (vertical or columnar) matching sets, numerals and their names; comparison of size; one dozen; taking halves; pennies, nickels, and dimes.	Tweedy Transparencies Series 1400 Includes 14 Transparencies, 80 Acetate Cut-Outs, Teacher's Manual, and Carrying Case.

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Objectives	Aid	Title	Content	Source
A-NUM-1	TP	Primary Arithmetic	(Each projectual can be used with the appropriate objective.) Number names and symbols; writing numbers; counting by 2's; counting by 5's and 10's to 100; adding horizontally; adding vertically; subtracting horizontally; subtracting vertically; number charts; big and little, large and small; one-half, one dozen (12).	Creative Visuals - #511 AO-SR Includes 12 Transparencies (511 AO-01 to 511 AO-12) Various Plastic Cutouts, and Teacher's Manual.
A-NUM-1	FS	Taller? Shorter? Larger? Smaller?	(Very elementary visually.) Objectives: To teach the vocabulary of comparison, and to provide application of the vocabulary to familiar situations.	Arithmetic for Beginners Series 1 (Number Readiness) 9016 C-Si-G Encyclopaedia Britannica Films, Inc. Script in Teacher's Manual; Also suggestions.
A-NUM-3	FS	Knowing Numbers	(Not an exercise for this objective, but an appropriate introduction to numbers at this point.)	Amazing Arithmetic Series (#73) Eye Gate House, Inc. #73-A Narrative on FS; Teacher's Manual gives suggestions.
A-NUM-3	FS	Let's Play Numbers	Objectives: To teach the reading of numerals from 1 to 10. To give practice in numbering objects in sequence up to 10. To give practive in telling which number comes "after", "between", and "before" in a sequence.	Arithmetic for Beginners - Series 1 (Number Readiness) 9014 C-Si-G Encyclopaedia Britannica Films, Inc. Script in Teacher's Manual; Also suggestions.
A-NUM-3	TP	Lower Elementary Topics	An aid in understanding basic arithmetic.	Mathematics No. 4 3M Visual Products - Cat. #559 Contains 27 Transparencies

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Objectives	Aid	Title	Content	Source
A-NUM-4	FL	Base Ten	Purpose: By counting and numbering 21 objects -- to illustrate the characteristics of the decimal system of numeration.	Elementary Mathematics Series Regular 8mm Film Loop No. R-80089 Encyclopaedia Brittannica Educational Corporation No. 20089 (silent); description, suggestions attached.
A-NUM-4	FS	Birthday at the Farm	(Subtitled: "Rational Counting to 10 and One-to-One Correspondence." Objectives: Knowing the number names in order; counting things; using original numbers; using cardinal numbers; a matching of one thing for one other thing.	Stories with Numbers Series McGraw-Hill Text-Films #643031 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
A-NUM-4	F	Let's Count	(Film touches upon several concepts beyond A-NUM-4, but they can virtually be ignored.) ....How useful counting can be; the difference between ordinal and cardinal numbers, and how easy it is to use tally marks and numerical symbols to answer the question, "How many?"	Coronet Instructional Films #247 16mm - Narrative on Soundtrack
A-NUM-4	TP	Lower Elementary Topics	(Each projectual can be used with the appropriate objective.) An aid in understanding basic arithmetic.	Mathematics No. 4 3M Visual Products - Cat. #559 Contains 27 transparencies.
A-NUM-4	FS	Numberland	(Main concept: "When counting in a series, each number means one more than the preceding number.")	Development of Number Concepts Series - Curriculum Films #635 Narrative on FS.

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Objectives	Aid	Title	Content	Source
A-NUM-4	FS	Sets	(FS does not cover counting; it merely introduces concept of set. However, it is an appropriate introduction to this objective.) ...the idea of a set...the idea of the members of a set...the idea that the members of a set may be alike, or totally different...	Kenner on Modern Mathematics - Sets and Counting Numbers Series - No. 1 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
A-NUM-4	FS	Vocabulary of Sets	(Introduction to idea of sets and simple terminology; difficult or irrelevant portions may be omitted.) ...the idea of a set as a collection or group of objects (or ideas)... the meaning of member of element of a set...sets are described in words and by listing the names of the members within braces...capital letter used to name the set...the meaning of the symbol "E" to show an element belongs to a set...the meaning of a subset is gradually developed as is the meaning of the empty set....	#1222 - Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
A-NUM-4	FS	We Learn Numbers - Part 1	(Covers 1 through 5.) ...numbers 1 through 5 explained in pictures...how to recognize and write symbols for numbers...	Work and Play with Numbers Series (#27) Eye Gate House, Inc. #27-B Narrative on FS; Teacher's Manual gives nature and purpose of the FS.
A-NUM-4	FS	We Learn Numbers - Part 2	(Covers 6 through 10). ...continues to develop the primary number facts from 6 through 10...	Work and Play with Numbers Series (#27) Eye Gate House, Inc. #27-C Narrative on FS; Teacher's Manual gives nature and purpose of the FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-NUM-4	FS	What are Numbers?	(Also introduces several concepts - ordinals, one-to-one, etc.) The numbers 1 through 9.	Arithmetic Series - Set No. 1 McGraw-Hill Book Co. #400020 Narrative on FS; Teacher's Guide gives frame-by-frame explanations, suggestions.
A-NUM-4	TP	Beginning Mathematics	(Each projectual can be used with the appropriate objective.) Topics for the primary grades: Recognition and understanding of number and numeral, cardinal and ordinal, and size relations.	Mathematics No. 15 3M Visual Products Cat. No. 661 Contains 23 transparencies.
A-NUM-4	FS	Counting Numbers and Zero	(With A-NUM-4, FS will also serve to preview A-NUM-8; and with A-NUM-8, it will review A-NUM-4.) ...the idea of counting numbers, defined as numbers which tell us how many members in a set...the understanding of zero...	Kenner on Modern Mathematics - Sets and Counting Numbers Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
A-NUM-4	TP	From Sets to Numbers	(Each projectual can be used with the appropriate objective.) Sets - the elements of a set; one-to-one matching of sets. Equal Sets - equivalent sets; sets with the same number of elements. Number, number word, numeral; Equivalent Sets 1-2-3-4-5; Equivalent Sets 6-7-8-9; Ordinals and Cardinals; The empty set; Numbers as the elements of a set; Subsets.....	Series MT1 Colonial Films, Inc. Includes 12 Transparencies (MT1-1 to MT1-12); 41 overlays, and a Teacher's Guide for each transparency.

Objectives	Aid	Title	Content	Source
A-NUM-4	TP	Modern Mathematics	(Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity.) ...sets, one-to-one matching and equivalent or non-equivalent sets. Addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts.	Elementary Primary Series United Transparencies, Inc. Cat. No. UTM 3866-2 Set MM-S1 Includes 78 Projectuals (MM-3000 to MM-3070), and Teacher's Guide with explanations, suggestions.
A-NUM-4	TP	New Math	(Each projectual can be used with the appropriate objective.) Titles: Discovering sets; Concept of sets; Equivalent and non-equivalent sets; Zero and empty sets; Ordinals first to fifth; Ordinals first to tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and inequalities; Commutative property; Associative property.	Instructo Corporation No. 841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20).
A-NUM-4	TP	Sets and Numbers	(Each projectual can be used with the appropriate objective.) Titles: One-to-one matching; Equivalent sets; Equal sets; The nos. 1 and 2; The nos. 3 and 4; The nos. 5 and 6; The nos. 7 and 8; The nos. 1 through 8; Sets of tens; 2-digit nos.; Reading and writing 2-digit numerals; numerals 0 through 10; Number order within a decade; "Skip counting"...	Elementary School Math - First Grade Series Creative Visuals #511 BA-SS Series of 14 transparencies. (511 BA-01 to 511 BA-14)

Objectives	Aid	Title	Content	Source
A-NUM-5	TP	From Sets to Numbers	(Each projectual can be used with the appropriate objective.) Titles: Sets; The elements of a set; One-to-one matching of sets; Equal sets - Equivalent sets; Sets with the same no. of elements; Number-number word-numeral; Equivalent sets 1-2-3-4-5; Equivalent sets 6-7-8-9; Ordinals and Cardinals; The empty set; Nos. as the elements of a set; Subsets.....	Series MT1 Colonial Films, Inc. Includes 12 transparencies (MT1-1 to MT1-12) 41 overlays and a Teacher's Guide for each transparency.
A-NUM-5	TP	New Math	(Each projectual can be used with the appropriate objective.) Titles: Discovering sets; Concept of sets; Equivalent and non-equivalent sets; Zero and empty sets; Ordinals first to fifth; Ordinals first to tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and inequalities; Commutative property; Associative property.	Instructo Corporation No. 841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20)
A-NUM-5	FS	Matching Numbers	This filmstrip is intended to develop a preliminary step toward meaningful counting by showing children how to make one-to-one correspondence between two sets of objects or matching numbers of two groups. This action does require the knowledge of number words.	Mathematics for Primary Grades Series No. 1020 - Filmstrip 3 (#1023) The Jam Handy Organization Narrative on FS
A-NUM-5	TP	Modern Mathematics	(Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity.) ...sets, one-to-one matching and equivalent or non-equivalent sets; addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts.	Elementary Primary Series United Transparencies, Inc. Cat. No. UTM 3866-2 Set MM-S1 - Includes 78 projectuals (MM-3000 to MM-3070), and Teacher's Guide with explanations, suggestions.

Objectives	Aid	Title	Content	Source
A-NUM-5	FS	One-To-One Correspondence Between Sets	Fairly Difficult; Employs Set Terminology. After viewing the filmstrip, your students should be able to discuss the following topics: sets, set members, equal sets, one-to-one correspondence, and equivalent sets, they should also be able to apply these new concepts to sets in their own environment.	Using sets and numbers series Filmstrip 2 Ginn and Co. & The Jam Handy Organization Narrative on FS, But Teachers' Manual gives Frame-By-Frame Explanations, Suggestions.
A-NUM-5	FS	Pedro and His Sheep	Objectives: To teach the meaning of one-to-one correspondence. To give practice in comparing the number of objects in sets. To introduce counting to 10.	Arithmetic For Beginners - Series 1 (Number Readiness) 9011 C-Si-G Encyclopedia Britannica Films Inc. Script in teachers' manual; also suggestions.
A-NUM-5	TP	Sets and Numbers	Each Projectual can be used with the appropriate objective. Titles: One-To-One Matching; Equivalent sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numberals; Numberals 0 through 10; Number Order Within A Decade; Skip Counting.	Elementary School Math-First Grade Series Creative Visuals #511 BA-SS Series of 14 Transparencies (511.BA-01 to 511. BA-14)
A-NUM-5	TP	Sets-Place Value	Each Projectual can be used with the appropriate objective. Titles: Equivalent Sets, Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping by Tens; Place Value: 2-Digit; Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets and Adding Numbers.	Elementary School Math-Second Grade Series Creative Visuals #511.CA-SS Series of 9 Transparencies (511.CA-01 To 511.CA-09

Objectives	Aid	Title	Content	Source
A-NUM-5	F	The Old Woman in a Shoe	...Introducing Primary Number Concepts ...One-To-One Correspondence, Cardinal and Ordinal Numbers, and Simple Ways to Express Addition.	(Beginning Number Concepts) Coronet Instructional Films #1502 Teachers' Guide For Description, Suggestions. 16MM-Narrative on Soundtrack
A-NUM-5	FS	We Group Things	...The way we group things, and why groups are important...Many kinds of groups that we can make. Some of the many other ways we can group things.	Your Lesson Plan Filmstrips #A-145 Y.L.P. Materials Corporation Narrative on FS
A-NUM-6	TP	Basic Number Facts: 1 Through 10	Set of 10 Projectuals, Each Illustrating a Different Number. Series of Ten Multi-Colored Projectuals for Teaching Number Concepts to Elementary Grade Levels. Hinged Masks Relate the Number to Familiar Objects. Spelling of the Number is included.	Tecnifax Corporation Cat.No.8441 Includes 10 Projectuals (01425-01434) Teacher's Guide, Album.
A-NUM-6	TP	Beginning Mathematics	Each Projectual can be used with the appropriate objective. Topics for the Primary Grades: Recognition and Understanding of Number and Numeral, Cardinal and Ordinal, and Size Relations.	Mathematics No. 15 3M Visual Products Cat.No.661 Contains 23 Transparencies
A-NUM-6	FS	Bricks for a Fireplace	Subtitled "Groups Through 6" To Review One-To-One Correspondence; To Find Out How Many Through Counting; To Recognize Groupings within Quantities through 6.	Stories with Numbers Series McGraw-Hill Text-Films #643033 Narrative on FS; Filmstrip Guid Gives Frame-By-Frame Explanatio Suggestions.

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Objectives	Aid	Title	Content	Source
A-NUM-6	TP	From The Union of Sets to Addition of Whole Numbers	Each Projectual Can be Used with the Appropriate Objective. Develops the structural properties of Addition by showing the application of the Commutative, Associative, Identity number and inverse operation properties to Joining of Sets and then to Addition of Whole Numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers.	Series MT5 Colonial Films,Inc. Includes 15 Transparencies (MT5-1 to MT5-15) 50 overlays, and a Teachers' Guide for each transparency.
A-NUM-6	FS	Getting Acquainted with Numbers	Objectives: To recognize sets of up to 10 objects. To recognize the numerals 1 to 10 and the word names One to Ten. To associate the numerals and word names with the corresponding number of objects.	Arithmetic for Beginners-Series (Number Readiness) 9012 C-Si-G Encyclopaedia Britannica Films Inc. Script in Teachers' Manual; alsc suggestions.
A-NUM-6	FS	Groups of 2 to 10	At end of FS, Concept of "Smaller group, Larger Group" is introduced. The Meaning of Group, Meaning of Smaller Group and Larger Group.	Seeing the Use of Numbers Series (#103) Set 1-Filmstrip D Eye Gate House, Inc. #103-D Narrative on FS; Teachers' Manu gives Frame-By-Frame Descriptio Suggestions. Correlated with "Learning to Use Arithmetic - Book 1" (D.C. Heath and Co.)
A-NUM-6	FS	How Many?	Objectives: Counting to 10 To Teach The Recognition of sets of 10. To Associate the Numerals from 1 to 10 with a corresponding number of objects.	Arithmetic for Beginners-Series 1 (Number Readiness) 9013 C-Si-G Encylopaedia Britannica Films I Script in Teachers' Manual; als suggestions.

Objectives	Aid	Title	Content	Source
A-NUM-6	TP	Lower Elementary Topics	Each Projectual Can be Used with the Appropriate Objective. An Aid in Understanding Basic Arithmetic.	Mathematics No. 4 3M Visual Products Cat.No.559 Contains 27 Transparencies
A-NUM-6	TP	Mathematics Readiness	Each Projectual can be used with the Appropriate Objective(s). Titles: "Numerals and Their Names; Writing the Numerals 1 Through 5; Writing the Numerals 6 Through 10; Counting by 2's; Learning To Count By 5's and 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 Transparencies, 80 Acetate Cut-Outs, Teachers' Manual, and carrying case.
A-NUM-6	TP	Modern Mathematics	Several TP'S devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One Matching and Equivalent or Non-Equivalent Sets. Addition and Substraction are approached through the Union of Sets, and the Comparison of Sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat. No. UTM 3866-2 Set MM-SI Includes 78 Projectuals (MM-3000 to MM-3070), and Teacher's Guide with explanations, suggestions.
A-NUM-6	FS	Numbers and Numerals	Purposes: "To Review the idea of number and to help children differentiate between number and numeral."	Modern Arithmetic Series - Grades 1 and 2 McGraw-Hill Text-Films #405422 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
A-NUM-6	FS	Numbers For Beginners	When used for A-NUM-6, The second half of the FS will be advanced and thus can either be omitted or serve as introductory material; when used for A-NUM-10, The First Half of the FS will serve by way of Review.	Development of Number Concepts Series Curriculum Films #636 Narrative on FS
A-NUM-6	TP	Seeing Numbers	Actually, less than the full set of 39 projectuals can sufficiently cover the objectives. Content: "1 One, 2 Two, 1 to 5 Bar Chart, 1 to 10 Bar Chart, 1 to 5 Children." 10 Ten.	Elementary Arithmetic Series United Transparencies Incorporated. Cat. No. UTM 3866-2 Set EA-S1 Includes 39 Projectuals (Ma-2001 To Ma-2013; Ma-2001-1 To Ma-2013 Ma-2001-2 To Ma-2013-2)
A-NUM-6	TP	Sets And Numbers	Each Projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numerals; Numerals 0 Through 10; Number Order Within a Decade; "Skip Counting",...	'Elementary School Math-First Grade" Series Creative Visuals #511.BA-SS Series of 14 Transparencies (511.BA-01 to 511.BA-14)
A-NUM-6	FS	The Game Of "How Many"?	Totals go up to 20.	Arithmetical Experiences for the Third Year. Eye Gate House, Inc. #51-A Narrative on FS; Teachers' Manual Gives Suggested Activities.

Objectives	Aid	Title	Content	Source
A-NUM-6	FS	The Meaning Of Numbers 1 Through 10	This Filmstrip is intended to develop the association of number words and/or number symbols with groups by counting ...	Mathematics For Primary Grades Series No. 1020-Filmstrip 5 (#1025) The Jam Handy Organization Narrative on FS
A-NUM-6	FS	What Numbers Mean		Primary Arithmetic Series McGraw-Hill Text-Films #103052
A-NUM-7	TP	Beginning Mathematics	Each projectual can be used with the appropriate objective. Topics For The Primary Grades: Recognition and understanding of number and numeral, cardinal and ordinal, and size relations.	Mathematics No. 15 3M Visual Products Cat.No.661 Contains 23 Transparencies.
A-NUM-7	TP	From Sets To Numbers	Each projectual can be used with the appropriate objective. Titles: "Sets; The Elements of a Set; One to One Matching of Sets; Equal Sets-Equivalent Sets; Sets with the same No. of Elements; Number-No. Word- Numeral; Equivalent Sets 1-2-3-4-5; Equivalent Sets 6-7-8-9; Ordinals and Cardinals; The Empty Set; Nos. as the Elements of a Set; Subsets..."	Series MT 1 Colonial Films, Inc. Includes 12 Transparencies (Mt1-1 To MT1-12) 41 Overlays, and a Teachers' Guide for each transparency.

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Objectives	Aid	Title	Content	Source
A-NUM-7	FS	The Numbers 1 To 5	Also introduces Ordinals. "Number Meanings, Number Symbols, Number Names."	"Seeing The Use Of Numbers" Series (#103) Set 1- Filmstrip B Eye Gate House, Inc. #103-B Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions correlated with "Learning To Use Arithmetic-Beginners Book" (D.C. Heath and Co.)
A-NUM-7	FS	The Numbers 6 To 10	"Number Meanings, Number Symbols, The Word SIX, Vocabulary Review."	"Seeing The Use of Numbers" Series (#103) Set 1-Filmstrip C Eye Gate House, Inc.#103-C Narrative on FS; Teachers' Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic-Beginners Book" (D.C. Heath and Co.)
A-NUM-8	FS	Counting Numbers And Zero	With A-NUM-4, FS will also serve to preview A-NUM-8; and with A-NUM-8, it will review A-NUM-4. "...The idea of counting numbers, defined as numbers which tell us how many members in a set.....the understanding of zero...."	"Kenner on Modern Mathematics-Sets and Counting Numbers" Series - No. 3 Filmstrip House Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

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Objectives	Aid	Title	Content	Source
A-NUM-9	TP	Beginning Mathematics	Each projectual can be used with the appropriate objective. "Topics for the primary grades; Recognition and understanding of number and numeral, Cardinal and Ordinal, and size relations."	Mathematics No. 15 3M Visual Products Cat.No.661 Contains 23 Transparencies.
A-NUM-9	FS	Brown Eggs and White Eggs	Subtitled "Comparing Groups". Comparing Groups, counting in a variety of ways, and matching number symbol to number of objects in a group by increasing skill in recognition of groups without counting, in One-To-One correspondence, and by counting.	"Stories With Numbers" Series McGraw-Hill Text-Films #643032 Narrative on FS;Filmstrip Guide Frame-By-Frame explanations, suggestions.
A-NUM-9	FS	Comparing Sets	"....The Idea of Matching Sets, "More Than," and "As Many As" are taught..."	"Kenner on Modern Mathematics-Sets and Counting Numbers" Series - No. 2 Filmstrip House Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
A-NUM-9	TP	From Sets To Numbers	Each projectual can be used with the appropriate objective. Titles: "Sets; The Elements of a Set; One to One Matching of Sets; Equal Sets Equivalent Sets; Sets with the same No. of Elements; Number-No. Word-Numeral Equivalent Sets 1-2-3-4-5; Equivalent Sets 6-7-8-9; Ordinals and Cardinals; The Empty Set; Nos. as the Elements of a Set; Subsets..."	Series MT1 Colonial Films, Inc. Includes 12 Transparencies (MT1-1 To MT1-12) 41 Overlays, and a Teachers Guide for each Transparency.

Objectives	Aid	Title	Content	Source
A-NUM-9	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objectives. "Develops the structural properties of addition by showing the application of the Commutative, Associative, Identity Number, and Inverse Operation Properties to joining of Sets and then to addition of Whole Numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of Whole Numbers.	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 To MT5-15), 50 overlays, and a Teachers' Guide for each transparency.
A-NUM-9	F	Introducing Sets, Numbers And Numerals	The film also reviews several concepts; and touches upon some advanced objectives like basic addition, which can be virtually ignored or used as a preview of upcoming work. "...The basic concepts of sets; set members, sub-sets, one-to-one correspondence and equivalent sets. Equivalent sets introduce us to the concept of number and its representation by numerals. When we join and separate sets, we see that numerals show the resulting number of the union or the separate subsets."	Coronet Instructional Films #1694 Teachers' Guide for description, suggestions, 16MM-Narrative on Soundtrack.
A-NUM-9	FS	Introduction To Sets	Fairly Difficult; Employs set terminology; can omit last 4 frames. "....After viewing the filmstrip, they should be able to answer the following questions: What is a set? What is a member of a set? What is a subset?"	"Using Sets and Numbers" Series-Filmstrip 1 Ginn and Co. & The Jam Handy Organization Narrative on FS, but Teachers' Manual gives Frame-By-Frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
A-NUM-9	FS	Matching Numbers	"This filmstrip is intended to develop a preliminary step toward meaningful counting by showing children how to make One-To-One correspondence between two sets of objects or matching numbers of two groups. This action does not require the knowledge of number words."	"Mathematics For Primary Grades' Series No. 1020-Filmstrip 3 (#1023) The Jam Handy Organization Narrative on FS
A-NUM-9	TP	Modern Mathematics	Several TP's Devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One matching and Equivalent or Non-Equivalent sets. Addition and Subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat. No. UTM 3866-2 Set MM-S1 Includes 78 projectuals (MM3000 To MM-3070), and Teacher's Guide with explanations, suggestions.
A-NUM-9	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Nonequivalent Sets; Zero and Empty Sets; Ordinals First to Fifth; Ordinals First to Tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and Incqualities; Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 Transparencies, wi individual sheets of descriptio suggestions. (841-1,2,3,4,10,11,12,18,19,20)
A-NUM-9	FS	One-To-One Correspondence Between Sets	Fairly Difficult; Employs Set Terminology. "...After viewing the filmstrip, your students should be able to discuss the following topics: Sets, Set Members, Equal Sets, One-To-One correspondence, and equivalent sets. They should also be able to apply these new concepts to sets in their own environment."	"Using Sets and Numbers" Series-Filmstrip 2 Ginn and Co. & The Jam Handy Organization Narrative on FS, but Teachers' Manual gives Frame-By-Frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
A-NUM-9	FS	Sets and Numbers	Purposes: "To provide an opportunity for the children to compare sets, to abstract numbers from sets, and to compare numbers.	Modern Arithmetic Series-Grades 1 and 2 McGraw-Hill Text-Films #403421 Narrative on FS; Filmstrip Guide gives Frame-By-Frame Explanations, suggestions.
A-NUM-10	FS	Numbers For Beginners	When used for A-NUM-6, the second half of the FS will be advanced, and thus can either be omitted or serve as introductory material; when used for A-NUM-10, the first half of the FS will serve by way of review.	Development of Number Concepts Series Curriculum Films #636 Narrative on FS
A-NUM-11	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic Arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 Contains 27 Transparencies.
A-NUM-11	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals and Their Names; Writing The Numerals 1 through 5; Writing The Numerals 6 through 10; Counting By 2's; Learning To Count By 5's And 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 Transparencies, 80 Acetate Cut-Outs, Teacher's Manual, and Carrying Case.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-NUM-11	TP	Primary Arithmetic	Each projectual can be used with the appropriate objective. Titles: "Number Names and Symbols; Writing Numbers; Counting By 2's; Counting By 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One-Half; One Dozen (12)."	Creative Visuals #511.AO-SR Includes 12 Transparencies (511.AO-01 To 511.AO-12), Various plastic cutouts, and Teacher's Manual.
A-NUM-12	FS	Recognizing Numbers	Part of FS has frames containing up to 15 items; can omit these. "Objectives: Counting to 15. Seeing the number of objects in sets and recognizing-without counting -sets of up to 4 objects. Recognition of numerals to 8. Use of word names for Ordinal numbers up to 'Fifth'."	"Arithmetic For Beginners"- Series 1 (Number Readiness) 9015 C-Si-G Encyclopaedia Britannica Films Inc. Script in Teacher's Manual; also suggestions.
A-A/S-1	FS	Adding And Taking Away	Parts 1 and 2 of the FS are more closely related to A-A/S-1, while part 3 is closer to A-A/S-2; however, the whole FS may be used for either. "How many is some? One Reason why we learn to add and to take away. ...Practice adding and taking away: Adding 1 more + 2 more to 3,4,5,and 6; Taking Away 1 + 2 from 3,4,5,and 6. ...Add 1 more and 2 more to 7,8,and 9...Take-Away 1 + 2 From 7,8,and 9." ...	-Your Lesson Plan Filmstrips #A-141 Y.L.P. Materials Corporation Narrative on FS

Objectives	Aid	Title	Content	Source
A-A/S-1	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One Matching and Equivalent or Non-Equivalent Sets. Addition and Subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat.No. UTM 3866-2 Set MM-SI Includes 78 projectuals (MM-3000 To MM-3070), and Teacher's Guide with explanations, suggestions.
A-A/S-2	FS	Adding And Taking Away	Parts 1 and 2 of the FS are more closely related to A-A/S-1, while part 3 is closer to A-A/S-2; however, the whole FS may be used for either. "How many is some? One reason why we learn to add and to take away. ...Practice adding and taking away: Adding 1 more + 2 more to 3,4,5, and 6; taking away 1 + 2 from 3,4,5, and 6. ...Add 1 more and 2 more to 7,8, and 9... Take-Away 1 + 2 from 7,8, and 9."	Your Lesson Plan Filmstrips #A-141 Y.L.P. Materials Corporation Narrative on FS.
A-A/S-2	FL	Drill Team	"Purposes": "To help children discover the difference between Number and Numeral. To develop the idea that the Number of members in two different sets can be compared and combined."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80088 Encyclopaedia Britannica Educational Corp. No. 20088 (Silent); Description, suggestions ATTACHED.
A-A/S-3	FS	Addition And Subtraction Concepts	"...The addition and subtraction facts for the numbers 1 through 4..."	"Work and Play With Numbers Series (#27) Eye Gate House, Inc. #27-E Narrative on FS; Teachers Manual gives nature and purpose of the FS;

Objectives	Aid	Title	Content	Source
A-A/S-3	FS	Duck Eggs	"Objectives: To emphasize the relationship between counting and adding. To use sets of objects to teach finding the sum of 1 or 2 and any number from 1 through 5."	"Arithmetic For Beginners"- Series 2 (Number Readiness) 9022 C-Si-G Encylopaedia Britannica Films Inc. Script in Teacher's Manual; also suggestions.
A-A/S-3	FS	Feeding Time On The Farm	Subtitled "Grouping and Regrouping" Objectives: "To introduce and develop the concept of groups within 4,5, and 6; to offer practice in comparing groups; to learn putting together or joining groups to find out "How Many In All" (Adding); to learn taking away or separating groups to find out "How Many Are Left" (Subtracting)."	Stories with Numbers" Series McGraw-Hill Text-Films #643036 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
A-A/S-3	FS	Grouping Numbers	Teaches elementary addition. "An important step before assigning number names to groups of objects, as is done in counting, is the recognition of small groups without counting. This filmstrip is designed for sequential teaching of groups from two through ten."	"Mathematics for Primary Grades' Series No. 1020-Filmstrip 4 (#1024) The Jam Handy Organization Narrative on FS

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Objectives	Aid	Title	Content	Source
A-A/S-3	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One matching and equivalent or non-equivalent sets. Addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat.No. UTM 3866-2 Set MM-SI Includes 78 projectuals (MM-3000 to MM-3070), and Teacher's Guide with explanations, suggestions.
A-A/S-3	FS	Modern Mathematics: Sets 1-5	"Familiar animals and objects are used to aid child in recognizing sets, symbols, numerals...simple addition and "Take Away"..."	"Using Modern Mathematics-Group 1-1" Series A531-1 Society For Visual Education, Inc. (SVE) Narrative on FS.
A-A/S-3	FS	Modern Mathematics: Sets 5-9	"Ideas involved in simple addition introduced as a basis for further understanding....familiar animals and objects are used to aid child in recognizing sets, symbols, numerals..."	"Using Modern Mathematics-Group 1-1" Series A531-2 Society For Visual Education, Inc. (SVE) Narrative on FS.
A-A/S-3	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations Through Tens."	Mathematics No. 16 3M Visual Products Cat.No.662 Contains 23 Transparencies.

Objectives	Aid	Title	Content	Source
A-A/S-3	FS	Putting Groups Together	"First Steps in addition, sums to 6."	"Seeing The Use of Numbers" Series (#103) Set 1-Filmstrip E Eye Gate House, Inc. #103-E Narrative on FS; Teachers' Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 1" (D.C.Heath and Co.)
A-A/S-3	FS	"Taking A Group Apart"	"First Steps in Subtraction, minuends to 4."	"Seeing The Use of Numbers" Series (#103) Setl-Filmstrip G Eye Gate House, Inc. #103-G Narrative on FS; Teachers' Manual gives Frame-By-Frame Description, Suggestions. Correlated with "Learning To Use Arithmetic-Book 1" (D.C. Heath and Co.)
A-A/S-3	F	"Ten Little Indians"	"...Understanding the basic concepts of subtraction. Presenting subtraction as the inverse of addition, the film explains the meaning of "Take Away,""How Many More Are Needed," and, by matching elements in one group with those in another, the meaning of "Find The Difference"...."	(Beginning Subtraction Concepts) Coronet Instructional Films #1592 Teacher's Guide gives description, suggestions. 16MM-Narrative on soundtrack.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-A/S-3	FS	The Circus	"Objectives: To develop understanding of simple addition and subtraction. To introduce the idea of sets of equal size by showing a set of 4 as 2 sets of 2, etc."	"Arithmetic For Beginners"- Series 2 (Number Readiness) 9023 C-Si-G Encyclopaedia Britannica Films Inc. Script in Teachers' Manual; also suggestions.
A-A/S-3	FS	Using and Understanding Numbers, 1 - 5	Covered Concepts: 1. Recognizing nos. without counting. 2. Associating no. symbols & oral no. words with small groups of concrete objects. 3. Comparing as to size. 4. Increasing and decreasing nos. 5. Ordinal nos. 6. Simple addition & subtraction 7. Appropriate arithmetic vocabulary.	"Using and Understanding Numbers" Series A537-1 Society For Visual Education, Inc. (SVE) Narrative on FS.
A-A/S-3	FS	Work And Play With Numbers 5 & 6	"...The addition and subtraction combinations for numbers 5 and 6..."	"Work and Play with Numbers" Series (#27) Eye Gate House, Inc. #27-F Narrative on FS; Teacher's Manual gives nature and purpose of the FS.
A-A/S-3	FS	Work And Play With Numbers 7 & 8	"The numbers 7 and 8 are thoroughly analyzed for addition and subtraction facts."	Work And Play With Numbers Series (#27) Eye Gate House, Inc. #27-G Narrative on FS; Teachers' Manual gives nature and purpose of FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-A/S-3	FS	Work And Play With Numbers 8 & 9	"The addition and subtraction facts for numbers 8 and 9..."	"Work And Play With Numbers" Series (#27) Eye Gate House, Inc. #27-H Narrative on FS; Teachers' Manual gives nature and purpose of the FS.
A-A/S-3	FS	Work And Play With Numbers 9 & 10	"The addition and subtraction facts for numbers 9 and 10..."	"Work And Play With Numbers" Series (#27) Eye Gate House, Inc. #27-I Narrative on FS; Teachers' Manual gives nature and purpose of the FS.
A-FRAC-1	FS	Fraction Facts	An Elementary introduction to fraction terminology.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-B Narrative on FS; Teachers' Manual gives suggestions.
A-FRAC-1	FS	What One Half Means	FS is applicable to any or all of these objectives. "This filmstrip is intended to develop an understanding of the meaning of one half."	"Mathematics For Primary Grades" Series No. 1020-Filmstrip 6 (#1026) The Jam Handy Organization Narrative on FS
A-FRAC-2	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays), related to film and FS series' of same name.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-FRAC-2	TP	"Mathematics Readiness"	Each projectual can be used with the appropriate objective(s). Titles: "Numerals and their Names; Writing the Numerals 1 Through 5; Writing the Numerals 6 Through 10; Counting by 2's; Learning to Count by 5's and 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teachers' Manual, and carrying case.
A-FRAC-2	TP	"Number Line"	Each projectual can be used with the appropriate objective. Titles: "Addition on the Number Line; Subtraction on the Number Line; Solving Addition and Subtraction Equations on the Number Line; Introduction to Fractional Numerals; Fractional Numbers."	"Elementary School Math-First Grade" Series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 to 511.BJ-63)
A-FRAC-2	TP	"Primary Arithmetic"	Each projectual can be used with the appropriate objective. Titles: "Number Names and Symbols; Writing Numbers; Counting by 2's; Counting by 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One-Half; One Dozen(12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12), various plastic cutouts, and Teachers' Manual.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
A-FRAC-2	FS	"What One Half Means"	FS is applicable to any or all of these objectives. "This filmstrip is intended to develop an understanding of the meaning of one half."	"Mathematics For Primary Grades' Series No. 1020-Filmstrip 6 (#1026) The Jam Handy Organization Narrative on FS
A-FRAC-3	TP	"Mathematics Readiness"	Each projectual can be used with the appropriate objective(s). Titles: "Numerals and Their Names; Writing the Numerals 1 through 5; Writing the Numerals 6 through 10; Counting by 2's; Learning to Count by 5's and 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 includes 14 transparencies 80 acetate cutouts, Teachers' Manual, and carrying case.
A-FRAC-3	FS	"What One Half Means"	FS is applicable to any or all of these objectives. "This filmstrip is intended to develop an understanding of the meaning of one half."	"Mathematics For Primary Grades Series No. 1020-Filmstrip 6 (#1026) The Jam Handy Organization Narrative on FS

Objectives	Aid	Title	Content	Source
B-NUM-1	TP	"Beginning Mathematics"	Each projectual can be used with the appropriate objective. "Topics for the primary grades: recognition and understanding of number and numeral, cardinal and ordinal, and size relations"	Mathematics No. 15 3M Visual Products Cat.No.661 Contains 23 transparencies.
B-NUM-1	TP	"From Sets To Numbers"	Each projectual can be used with the appropriate objective. Titles: "Sets; The elements of a set; One to One Matching of Sets; Equal Sets-Equivalent Sets; Sets with the same No. of Elements; Number-No.Word-Numeral; Equivalent Sets 1-2-3-4-5; Equivalent Sets 6-7-8-9; Ordinals and Cardinals; The Empty Set; Nos. as the Elements of a Set; Subsets..."	Series MT1 Colonial Films, Inc. Includes 12 Transparencies (MT1-1 To MT1-12), 41 overlays, and a Teachers' Guide for each transparency.
B-NUM-1	TP	"Mathematics Readiness"	Each projectual can be used with the appropriate objective(s). Titles: "Numerals and Their Names; Writing the Numerals 1 Through 5; Writing the Numerals 6 Through 10; Counting by 2's; Learning to Count by 5's and 10's Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teachers' Manual, and carrying case.

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Objectives	Aid	Title	Content	Source
B-NUM-1	FS	"Ordering Sets And Ordering Numbers"	Good for Counting. When used with B-NUM-1, might omit the odd-even part.	"Using Sets And Numbers" Series-Filmstrip 3 Ginn And Co. & The Jam Handy Organization Narrative on FS, but Teachers' Manual gives Frame-By-Frame explanations, suggestions.
B-NUM-1	TP	"Primary Arithmetic"	Each projectual can be used with the appropriate objective. Titles: "Number Names and Symbols; Writing Numbers: Counting by 2's; Counting by 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One-Half; One Dozen (12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12), various plastic cutouts, and Teachers' Manual.
B-NUM-1	TP	"Seeing Numbers"	Actually, less than the full set of 39 projectuals can sufficiently cover the objectives. "1 One, 2 Two, 1 To 5 Bar Chart, 1 To 10 Bar Chart, 1 To 15 Children." 10 Ten.	Elementary Arithmetic Series United Transparencies Incorporated Cat.No. UTM 3866-2 SET EA-S1 Includes 39 projectuals (Ma-2001 To Ma-2013; Ma-2001-1 To Ma-2013-1; Ma-2001-2 To Ma-2013-2)

Objectives	Aid	Title	Content	Source
B-NUM-1	TP	Sets And Numbers	Each projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numerals; Numerals 0 Through 10; Number Order within a decade; "Skip Counting",..."	"Elementary School Math-First Grade" Series Creative Visuals #511.BA-SS Series of 14 transparencies (511.BA-01 To 511.BA-14)
B-NUM-2	FS	Building Tens And Ones	When used for B-NUM-2, some parts of the FS will be advanced and may be omitted. "Concepts Developed: 1. One Ten and some Ones make up the teen numbers. 2. Two place numbers are made up by uniting tens, or tens and ones. 3. The order of tens is the same as the order of ones."	"Development of Number Concepts" Series Curriculum Films #637 Narrative on FS
B-NUM-3	TP	Sets And Numbers	Each projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numerals; Numerals 0 Through 10; Number Order within a Decade; "Skip Counting",..."	"Elementary School Math-First Grade" Series Creative Visuals #511.BA-SS Series of 14 transparencies (511.BA-01 To 511.BA-14)

Objectives	Aid	Title	Content	Source
B-NUM-3	FS	The Horseback Ride	Subtitled "Rational Counting to 20" Objectives: "Rational counting of objects to 20 to find out "How Many"; beginning ideas in place value by appreciating "Teen" numbers such as: 10 and 1 more, etc; appreciating 20 as 2 groups of 10."	"Stories With Numbers" Series McGraw-Hill Text-Films #643034 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-NUM-3	FS	The Swimming Lesson	Subtitled "One More And One Less" Objectives: "Reinforcement of rational counting in various ways; adding 1 to a recognized or known group; subtracting 1 from a recognized or known group."	"Stories With Numbers" Series McGraw-Hill Text-Films #643035 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-NUM-3	FS	Understanding 11 to 19		"Mathematics" Series #A-105 Your Lesson Plan Filmstrips Inc. Narrative on FS.
B-NUM-4	FS	Reading And Writing Whole Numbers	Also introduces place value to some extent. "1-Place through 4-Place numbers.	Arithmetic Series Set.No. 1 McGraw-Hill Book Co. #400021 Narrative on FS; Teachers' Guide gives Frame-By-Frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
B-NUM-8	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations about 5; Open Sentences; Introduction to Subtraction; Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	"Elementary School Math-First Grade" Series Creative Visuals #511.BB-SS Series of 12 transparencies (511.BB-15 To 511.BB-26)
B-NUM-9	TP	Addition And Subtraction	SAME AS ABOVE SEE B-NUM-8	SAME AS ABOVE SEE B-NUM-8
B-NUM-9	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an Equation; Finding Sums; Subtraction Equations; Relating Addition and Subtraction; Order of Numbers; The Order Principle of Addition; Use of Parenthesis; The Grouping Principle of Addition; Combinations of Ten; Combinations Greater Than Ten; Etc...."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CB-SS Series of 16 Transparencies (511.CB-10 To 511.CB-25)
B-NUM-9	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Nonequivalent Sets; Zero and Empty Sets; Ordinals First to Fifth; Ordinals First to Tenth; Counting by 1's,2's,5's,and 10's; Equalities and Inequalities, Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-NUM-9	TP	Number Facts-7 and 8	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations about 7; Solving Subtraction Equations about 7; Solving Addition-Subtraction Equations about 7; Relating Addition and Subtraction-7; Solving Addition Equations about 8; Solving Subtraction Equations about 8; Relating Addition and Subtraction Equations about 8; Inequalities Less Than 8."	"Elementary School Math-First Grade" Series Creative Visuals #511.BE-SS Series of 8 Transparencies (511.BE-31 To 511.BE-38)
B-NUM-9	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping By Tens; Place Value: 2-Digit; Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets and Adding Numbers.	"Elementary School Math-Second Grade" Series Creative Visuals #511.CA-SS Series of 9 Transparencies (511.CA-01 To 511.CA-09)
B-NUM-10	TP	Beginning Mathematics	Each projectual can be used with the appropriate objective. "Topics For The Primary Grades: Recognition and Understanding of Number and Numeral, Cardinal and Ordinal, and Size Relations."	Mathematics No. 15 3M Visual Products Cat.No. 661 Contains 23 transparencies.

Objectives	Aid	Title	Content	Source
B-NUM-10	TP	From Sets To Numbers	Each projectual can be used with the appropriate objective. Titles: "Sets; The Elements of a Set; One To One Matching of Sets; Equal Sets-Equivalent Sets; Sets with the same No. of Elements; Number-No.Word-Numeral; Equivalent Sets 1-2-3-4-5; Equivalent Sets 6-7-8-9; Ordinals and Cardinals; The Empty Set; Nos. as the Elements of a Set;Subsets..."	Series MT1 Colonial Films, Inc. Includes 12 transparencies (Mt1-1 To MT1-12), 41 overlays, and Teachers' Guide for each transparency.
B-NUM-10	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One Matching and Equivalent or Non-Equivalent Sets. Addition and Subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat. No.UTM 3866-2 Set MM-SI Includes 78 projectuals (MM-3000 To MM-3070), and Teachers' Guide with explanations, suggestions.
B-NUM-10	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Non-Equivalent Sets; Zero and Empty Sets; Ordinals First to Fifth; Ordinals First to Tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and Inequalities; Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20)

Objectives	Aid	Title	Content	Source
B-NUM-10	FS	Vocabulary 1	Although FS does touch upon Ordinals, it does not cover it extensively; however, this is an appropriate level for a review of various concepts (Third, More, Half, Above, Before Etc.) "Review of terms of relative size and position."	"Seeing The Use of Numbers" Series (#103) Set 1 - Filmstrip J Eye Gate House,Inc. #103-J Narrative on FS; Teachers' Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning to Use Arithmetic-Book 1" (D.C. Heath and Co.)
B-PV-1	FL	Base Ten	"Purpose: By counting and numbering 21 objects - to illustrate the characteristics of the Decimal System of Numeration."	Elementary Mathematics Series Regular 8MM Film Loop No.R-80089 Encyclopaedia Britannica Educational Corp. No. 20089 (Silent); Description, Suggestions ATTACHED.
B-PV-1	FS	Building Tens And Ones	When used for B-NUM-2, some parts of the FS will be advanced and may be omitted. "Concepts Developed: 1. One Ten and some Ones make up the teen numbers. 2. Two place numbers are made up by uniting tens, or tens and ones. 3. The order of tens is the same as the order of ones."	"Development of Number Concepts" Series Curriculum Films #637 Narrative on FS
B-PV-1	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 Contains 27 transparencies.

Objectives	Aid	Title	Content	Source
B-PV-1	TP	Place Value	Each projectual can be used with the appropriate objective. Titles: "The Meaning of Place Value; Sums of Tens; Finding a Sum Greater than Ten; Solving Equations of Sums Greater than 10; Solving Subtraction Equations less than 18; Subtraction Combinations less than 18."	"Elementary School Math-First Grade" Series Creative Visuals #511.BH-SS Series of 6 transparencies (511.BH-53 To 511.BH-58)
B-PV-1	TP	Sets and Numbers	Each projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numerals; Numerals 0 through 10; Number Order within a Decade; "Skip Counting",..."	"Elementary School Math-First Grade" Series Creative Visuals #511.BA-SS Series of 14 Transparencies (511.BA-01 To 511.BA-14)
B-PV-1	FS	The Story of Numbers	Historical Introduction to place value. "The roots of our number thinking go back to the beginning of History. This historical approach is presented to children to give them an appreciation of our number system and to show the reason for our using base ten."	"Mathematics for Primary Grades" Series No. 1020-Filmstrip 1 (#1021) The Jam Handy Organization Narrative on FS.

Objectives	Aid	Title	Content	Source
B-PV-1	FS	Modern Mathematics: Sets 11-15	In covering numbers 11 through 15, the FS introduces the concept of place value. "Forming "Teen" numbers by associating a group of ten objects and a few others...."	"Using Modern Mathematics -- Group 1-2" Series A531-6 Society For Visual Education, Inc. (SVE) Narrative on FS
B-PV-1	FS	Modern Mathematics: Sets 16-20	In covering numbers 16 through 20, the FS uses the concept of place value. "Forming "Teen" numbers by associating a group of ten objects and a few others..."	"Using Modern Mathematics-- Group 1-2" Series A531-7 Society For Visual Education, Inc. (SVE) Narrative on FS
B-PV-1	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping by Tens; Place Value: 2-Digit; Place Value: 3-Digit; Place Value 4-Digit; Joining Sets and Adding Numbers."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CA-SS Series of 9 transparencies (511.CA-01 to 511.CA-09)
B-PV-2	TP	Place Value	Each projectual can be used with the appropriate objective. Titles: "The Meaning of Place Value; Sums of Tens; Finding a Sum Greater Than Ten; Solving Equations of Sums Greater Than 10; Solving Subtraction Equations Less Than 18; Subtraction Combinations Less Than 18."	"Elementary School Math-First Grade" Series Creative Visuals #511.BH-SS Series of 6 transparencies (511.BH-53 To 511.BH-58)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-PV-2	TP	Sets and Numbers	Each projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading and Writing 2-Digit Numerals; Numerals 0 Through 10; Number Order within a decade; "Skip Counting",..."	"Elementary School Math-First Grade" Series Creative Visuals #511.BA-SS Series of 14 transparencies (511.BA-01 To 511.BA-14)
B-PV-2	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping by Tens; Place Value: 2-Digit Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets and Adding Numbers	Elementary School Math-Second Grade" Series Creative Visuals #511.CA-SS Series of 9 transparencies (511.CA-01 To 511.CA-09) "
B-PV-2	FS	Tens And Hundreds Notation	When used with B-PV-2, end of FS may be too advanced, and may be omitted or used as introductory material; with C-PV-1, Most of FS may serve as review material. "The main concept here is the importance of place value in our numeral notation."	"Kenner on Modern Mathematics-Operations and Relations-Part 2" Series -- No. 1 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-PV-3	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger Numerals; Ancient Roman Numerals; The Abacus; Hindu Numerals; Place-Value Numerals; The Numeral 10; From 99 to 100; The Importance of "0"; Digits; Expanded Notation-Part1; Expanded Notation-Part2..."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 To MT2-12), 40 overlays, and a Teachers' Guide for each transparency.
B-PV-3	FS	Numbers 11 to 19	Although an appropriate introduction to this objective, FS only covers numbers through 19. "The meaning of the numbers, how to write them in figures, informal introduction to place value."	"Seeing The Use of Numbers" Series (#103) Set 1 - Filmstrip F Eye Gate House,Inc. #103-F Narrative on FS; Teachers' Manual gives Frame-By-Frame description, suggestions correlated with "Learning to Use Arithmetic-Book 1" (D.C. Heath and Co.)
B-PV-3	F	Place Value: Ones, Tens, Hundreds	"...Counting in groups of ones, tens, and hundreds is easier than counting by ones. This film clearly explains the concept of place value and presents the numerals and words for the numbers we use."	Coronet Instructional Films #1381 Teacher's Guide gives description, suggestions, 16MM-Narrative on Soundtrack

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-1	TP	Addition and Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction to Inequalities; Inequalities Involving 2-Digit Nos.; Combining Sets; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations about 5; Open Sentences; Introduction to Subtraction; Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation between addition and subtraction".	"Elementary School Math-First Grade" Series Creative Visuals #511.BB-SS Series of 12 transparencies (511.BB-15 To 511.BB-26)
B-A/S-1	FS	Addition: Fifteen Easiest Combinations	All frames show sums of 2 through 6 in this form: $\frac{3}{1}{4}$	Basic Numbers--Speed-1-0-Strip Series A536-10 Society For Visual Education, Inc. (SVE) Narrative on FS.
B-A/S-1	FS	Addition: Nineteen Zero Combinations	All frames show sums of 0 through 9 in this form: $\frac{0}{8}{8}$ With 0 as one of the addends in each frame.	Basic Numbers--Speed-1-0-Strip Series A536-12 Society For Visual Education, Inc. (SVE) Narrative on FS.
B-A S-1	FS	Addition: Thirty Easy Combinations	All frames show sums of 7 through 10 in this form: $\frac{4}{5}{9}$	Basic Numbers--Speed-1-0-Strip Series A536-11 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
B-A/S-1	FL	Drill Team	"Purposes": "To help children discover the difference between Number and Numeral. To develop the idea that the Number of members in two different sets can be compared and combined."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80088 Encyclopaedia Britannica Educational Corp. No.20088 (Silent); description, suggestions ATTACHED.
B-A/S-1	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teachers' Guide provides detailed descriptions and continuity. "...Sets, One-To-One matching and equivalent or non-equivalent sets. Addition and Subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat.No. UTM 3866-2 Set MM-SI Includes 78 projectuals (MM-3000 To MM-3070), and Teacher's Guide with explanations, suggestions.
B-A/S-1	FS	Modern Mathematics: Sets 9-12	End of FS, which concerns ordinal numbers, may either be omitted or serve as review. "Parts of sets (sub-sets); numbers in small sets (groups); number symbols; number words.....Simple Addition...."	Using Modern Mathematics -- Group 1-1 Series A531-3 Society For Visual Education, Incorporated (SVE) Narrative on FS.
B-A/S-1	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No.662 Contains 23 transparencies.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-1	FS	Using And Understanding Numbers, 5-9	Covered Concepts: 1. Recognizing nos. in small groups of concrete objects without counting. 2. Associating no. symbols and oral no. words with small groups of concrete objects. 3. Comparing as to size. 4. Increasing & decreasing nos. 5. Ordinal nos. 6. Simple Addition & Take Away 7. Appropriate arithmetic vocabulary.	Using And Understanding Numbers Series A537-2 Society For Visual Education, Incorporated (SVE) Narrative on FS
B-A/S-1	FS	Using And Understand Numbers 9-12	Covered Concepts: 1. Recognizing nos. in small groups of concrete objects without counting. 2. Associating no. symbols and oral no. words with small groups of concrete objects. 3. Comparing as to size. 4. Increasing & decreasing nos. 5. Ordinal nos. 6. Simple Addition & Take Away 7. Appropriate arithmetic vocabulary.	Using And Understanding Numbers Series A537-3 Society For Visual Education, Incorporated (SVE) Narrative on FS
B-A/S-1	FS	Work And Play With Number 11	First reviews addition and subtraction facts through 10.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-A Narrative on FS; Teachers' Manual gives suggestions.
B-A/S-2	FS	A Number Family In Addition		Primary Arithmetic Series McGraw-Hill Text-Films #103054 Narrative on FS

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-2	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining Sets; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations about 5; Open Sentences; Introduction to Subtraction Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	"Elementary School Math-First Grade" Series Creative Visuals #511.BB-SS Series of 12 Transparencies (511.BB-15 To 511. BB-26)
B-A/S-2	FS	How Many In All? How Many Are Left?	"Addition and Subtraction Facts, Sums and Minuends to 6."	"Seeing The Use of Numbers" Series (#103) Set 1-Filmstrip I Eye Gate House, Inc. #103-I Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic-Book 1" (D.C. Heath & Co.)
B-A/S-2	FS	Modern Mathematics: Addition - Objects And Symbols	"Vertical And Horizontal Forms or Patterns; Equations...."	"Using Modern Mathematics -- Group 1-2" Series A531-9 Society For Visual Education Inc. (SVE) Narrative on FS
B-A/S-2	FS	Modern Mathematics: Subtraction - Objects And Symbols	"Vertical and Horizontal Forms or Patterns; Equations...."	"Using Modern Mathematics -- Group 1-2" Series A531-10 Society For Visual Education Inc. (SVE) Narrative on FS

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-2	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No.662 Contains 23 transparencies.
B-A/S-3	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations About 5; Open Sentences; Introduction to Subtraction; Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	Elementary School Math-First Grade" Series Creative Visuals #511.BB-SS Series of 12 transparencies (511.BB-15 To 511.BB-26)
B-A/S-4	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; subtraction equations; relating addition and subtraction; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
B-A/S-3	FS	Learning About Equations	"To Review numerals for the number of a set and to introduce equations."	Modern Arithmetic Series -- Grades 1 and 2 McGraw-Hill Text-Films #405424 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-3	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No.662 Contains 23 transparencies
B-A/S-3	TP	Primary Arithmetic	Each projectual can be used with the appropriate objective. Titles: "Number Names and Symbols; Writing Numbers; Counting by 2's; Counting by 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One-Half; One Dozen (12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12), various plastic cutouts, and Teacher's Manual.
B-A/S-3	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping by Tens; Place Value: 2-Digit; Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets and Adding Numbers."	Elementary School Math-Second Grade Series Creative Visuals #511.CA-SS Series of 9 Transparencies (511.CA-01 To 511.CA-09)
B-A/S-3	FS	Sign Language	"+,-,and = signs used with sums and minuends to 6."	Seeing The Use of Numbers Series - Set II -Number 1 Eye Gate House, Inc. #106-A Correlated with"Learning to Use Arithmetic Book 2" (D.C.Heath and Co.) Narrative on FS; Teachers' Manual gives description, suggestions.

Objectives	Aid	Title	Content	Source
B-A/S-3	FS	Subtraction: Fifteen Easiest Combinations	All frames show subtraction problems with minuends 2 through 6 and differences 1 through 5, in this form: $\begin{matrix}5\\3\\\hline 2\end{matrix}$	Basic Numbers -- Speed-1-0-Strip Series A536-14 Society For Visual Education, Inc. (SVE) Narrative on FS
B-A/S-3	FS	Subtraction: Nineteen Zero Combinations	All frames show subtraction problems with minuends 0 through 9 and 0 as either subtrahend or difference, in this form: $\begin{matrix}9\\\hline 9\end{matrix}$; $\begin{matrix}7\\\hline 0\end{matrix}$; Etc.	Basic Numbers-Speed-1-0-Strip Series A536-16 Society For Visual Education, Inc. (SVE)
B-A/S-3	FS	Subtraction: Thirty Easy Combinations	All frames show subtraction problems with minuends 7 through 10 and differences 1 through 9, in this form: $\begin{matrix}7\\4\\\hline 3\end{matrix}$	Basic Numbers-Speed-1-0-Strip Series A536-15 Society For Visual Education, Inc. (SVE) Narrative on FS
B-A/S-4	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. TITLES: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining Sets; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations About 5; Open Sentences; Introduction to Subtraction Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	Elementary School Math-First Grade Series Creative Visuals #511.BB-SS Series of 12 transparencies (511.BB-15 To 511.BB-26)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-AS-4	FS	Discovery of Addition Facts	"....The idea of addition is introduced, along with the symbol for addition, + ... the concept for addition is put together...."	"Kenner On Modern Mathematics-Operations and Relations - Part 1 "Series - No. 1 Filmstrip House Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
B-A/S-4	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; subtraction equations; relating addition and subtraction; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc...."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
B-A/S-4	FS	Inverse Operations: Addition And Subtraction	Purposes: "To provide the children with an opportunity to investigate the relation between addition and subtraction."	Modern Arithmetic Series - Grades 1 & 2 - Set 2 McGraw-Hill Text Films #405225 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-4	FL	Mathematical Sentence	"Purposes: To compare verbal assertions and mathematical sentences. To show that the structure and elements of each are similar. To illustrate simple ways for determining the truth value of both types of statement."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80078 Encyclopaedia Britannica Educational Corp. No. 20078 (Silent); description, suggestions ATTACHED

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-4	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, One-To-One matching and equivalent or non-equivalent sets. Addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Incorporated Cat. No. UTM 3866-2 Set MM-S1 Includes 78 projectuals (MM-3000 To MM-3070), and Teacher's Guide with explanations, suggestions.
B-A/S-4	TP	Number Facts-6	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 6; Solving Subtraction Equations About 6; Solving Equations About 6; Relating Addition And Subtraction About 6."	Elementary School Math-First Grade Series Creative Visuals #511.BC-SS Series of 4 transparencies (511.BC-27 To 511.BC-30)
B-A/S-4	TP	Number Facts -7 And 8	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 7; Solving Subtraction Equations About 7· Solving Addition-Subtraction Equations about 7; Relating Addition And Subtraction -7; Solving Addition Equations About 8; Solving Subtraction Equations About 8; Relating Addition And Subtraction Equations About 8; Inequalities Less than 8."	Elementary School Math-First Grade Series Creative Visuals #511.BE-SS Series of 8 transparencies (511.BE-31 To 511.BE-38)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-4	TP	Number Facts - 9 And 10	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 9; Solving Subtraction Equations About 9; Relating Addition And Subtraction About 9; Relating Addition and Subtraction Equations About 9; Addition Equations About 10; Subtraction Equations About 10; Relating Addition And Subtraction Equations About 10."	Elementary School Math-First Grade Series Creative Visuals #511.BF-SS Series of 7 transparencies (511.BF-39 To 511.BF-45)
B-A/S-4	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition On The Number Line; Subtraction On The Number Line; Solving Addition And Subtraction Equations On The Number Line; Introduction To Fractional Numerals; Fractional Numbers."	Elementary School Math-First Grade Series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 To 511.BJ-63)
B-A/S-4	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations Through Tens."	Mathematics No. 16 3M Visual Products Cat.No. 662 Contains 23 transparencies
B-A/S-5	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining Sets; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations About 5; Open Sentences; Introduction To Subtraction; Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	Elementary School Math-First Grade Series Creative Visuals #511.BB-SS Series of 12 Transparencies (511.BB-15 To 511.BB-26)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-5	FS	Addition And Subtraction-Part 1	Covers numbers 1 to 10. "Addition and subtraction processes and basic facts through sums and minuends of 10."	Arithmetic Series Set No. 1 McGraw-Hill Book Co. #400022 Narrative on FS; Teachers' Guide gives Frame-By-Frame Explanations, suggestions.
B-A/S-5	FS	Addition Equations-0 Through 9	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "....Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1- Primary-Modern Mathematics-Drill Series - Part 6 Curtis Circulation Co. No narrative.
B-A/S-5	TP	Equations - Number Line	Each projectual can be used with the appropriate objective. "Solving An Equation; Finding Sums; Subtraction Equations; Relating Addition and Subtraction; Order of Numbers The Order Principle of Addition; Use of Parenthesis; The Grouping Principle of Addition; Combinations of Ten; Combinations of Ten; Combinations Greater than Ten; Etc...."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 Transparencies (511.CB-10 To 511.CB-25)

Objectives	Aid	Title	Content	Source
B-A/S-5	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. "Develops the structural properties of addition by showing the application of the commutative, associative, identity number, and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 To MT5-15), 50 overlays, and a Teachers' Guide for each transparency.
B-A/S-5	FS	Investigating The Number Line	Uses the number line as a means of doing addition and subtraction problems. Purposes: "To provide an opportunity for the children to explore the structure of the number line and the use of the number line to illustrate addition and subtraction."	Modern Arithmetic Series-Grades 1 & 2 - Set 2 McGraw-Hill Text Films #405224 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-5	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 Contains 27 transparencies

Objectives	Aid	Title	Content	Source
B-A/S-5	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals And Their Names; Writing The Numerals 1 Through 5; Writing The Numerals 6 Through 10; Counting By 5's and 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teacher's Manual, and carrying case.
B-A/S-5	FS	Modern Mathematics: Simple Addition Advanced	Addition problems with sums of 7 through 18; some problems with pictures. "...Addition Combinations...Numbers 7 Through 18 Taught With Sets Of Concrete Objects..."	Using Modern Mathematics-Group 2 - Series A531-13 Society For Visual Education, Inc. (SVE) Narrative on FS.
B-A/S-5	FS	Modern Mathematics: Simple Subtraction Advanced	Subtraction problems with minuends 9 through 18; leads up to concept of written subtraction problems by giving pictured problems through most of FS. "...Subtraction Combinations...Numbers 9 Through 18; Minus, Equal Signs; Number Symbols..."	Using Modern Mathematics-Group 2 Series A531-14 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
B-A/S-5	TP	Number Facts-6	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 6; Solving Subtraction Equations About 6; Solving Equations About 6; Relating Addition and Subtraction About 6."	Elementary School Math-First Grade Series Creative Visuals #511.BC-SS Series of 4 transparencies (511.BC-27 To 511.BC-30)
B-A/S-5	TP	Number Facts - 7 and 8	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 7; Solving Subtraction Equations About 7; Solving Addition-Subtraction Equations about 7; Relating Addition and Subtraction -7; Solving Addition Equations About 8; Solving Subtraction Equations About 8; Relating Addition And Subtraction Equations About 8; Inequalities Less Than 8."	Elementary School Math-First Grade Series Creative Visuals #511.BE-SS Series of 8 transparencies (511.BE-31 To 511.BE-38)
B-A/S-5	TP	Number Facts - 9 and 10	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 9; Solving Subtraction Equations About 9; Relating Addition and Subtraction About 9; Relating Addition And Subtraction Equations About 9; Addition Equations About 10; Subtraction Equations About 10; Relating Addition And Subtraction Equations About 10."	Elementary School Math-First Grade Series Creative Visuals #511.BF-SS Series of 7 transparencies (511.BF-39 To 511.BF-45)

Objectives	Aid	Title	Content	Source
B-A/S-5	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition On The Number Line; Subtraction On The Number Line; Solving Addition And Subtraction Equations On The Number Line; Introduction To Fractional Numerals; Fractional Numbers."	Elementary School Math-First Grade Series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 To 511.BJ-63)
B-A/S-5	FS	Number Stories of 7 and 8	"Addition and subtraction families, sums and minuends of 7 and 8."	Seeing The Use Of Numbers Series-Set II-Number 3 Eye Gate House, Inc. #106-C Correlated with "Learning To Use Arithmetic-Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers' Manual gives description, suggestions.
B-A/S-5	FS	Number Stories of 9 and 10	"Addition and subtraction families sums and minuends of 9 and 10."	Seeing The Use Of Numbers Series-SetII-Number 4 Eye Gate House, Inc. #106-D Correlated with "Learning To Use Arithmetic Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers' Manual gives description, suggestions.

Objectives	Aid	Title	Content	Source
B-A/S-5	FS	Number Stories of 11 and 12	"Addition and subtraction families sums and minuends of 11 and 12."	Seeing The Use Of Numbers Series-Set II - Number 9 Eye Gate House, Inc. #106-I Correlated with "Learning To Use Arithmetic Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers' Manual gives description, suggestions.
B-A/S-5	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No. 662 Contains 23 transparencies.
B-A/S-5	TP	Primary Arithmetic	Each projectual can be used with the appropriate objective. Titles: "Number Names And Symbols; Writing Numbers; Counting by 2's; Counting by 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One Half; One Dozen(12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12), various plastic cutouts, and Teachers' Manual
B-A/S-5	FS	Subtraction Equations - 0 Through 9	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part 8 Curtis Circulation Co. No narrative.

Objectives	Aid	Title	Content	Source
B-A/S-6	TP	Equations - Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; relating addition and subtraction; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc. ..."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
B-A/S-6	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. "Develops the structural properties of addition by showing the application of the commutative, associative, identity number and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically issustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 To MT5-15), 50 overlays, and a Teachers' Guide for each transparency.
B-A/S-6	FS	More Numbers And Numerals	Purposes: "To develop an awareness of different numerals for a number."	Modern Arithmetic Series-Grades 1 and 2 McGraw-Hill Text-Films #405426 Narrative on FS; Filmstrip Guide gives Frame-By-Frame Explanations suggestions.

Objectives	Aid	Title	Content	Source
B-A/S-7	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums: subtraction equations; relating addition and subtraction; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
B-A/S-7	FL	Mathematical Sentence	"Purposes: To compare verbal assertions and mathematical sentences. To show that the structure and elements of each are similar. To illustrate simple ways for determining the truth value of both types of statement."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80078. Encyclopaedia Britannica Educational Corp. No. 20078 (Silent); Description, suggestions ATTACHED.
B-A/S-7	FS	Number Sentences	"...Suggests that, as in ordinary language, mathematical sentences can be both true and false...activities involving $=, \neq, <, >$,....Equations and Inequalities....."	Kenner On Modern Mathematics-Operations and Relations-Part 1 - Series - No. 4 Filmstrip House Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-8	TP	Addition Properties	Each projectual can be used with the appropriate objective. Titles: "The Order Property Of Addition; More About The Order Property of Addition; The Use of Parenthesis in Addition; Sums of Three Numbers: Parenthesis and Grouping; Introduction To The Grouping Property of Addition; The Grouping Property of Addition."	Elementary School Math-First Grade Series Creative Visuals #511.BG-SS Series of 7 Transparencies (511BG-46 To 511.BG-52)
B-A/S-8	FS	Changing The Order: Addition And Subtraction	Purposes: "To provide an opportunity for the children to investigate the results of changing the order of performing physical activities, of putting sets together and taking sets apart, and of adding and subtracting numbers. To help the children understand the commutative property of addition."	Modern Arithmetic Series-Grades 3 and 4 McGraw-Hill Text-Films #405428 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-8	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; subtraction equations; relating addition and subtraction; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc...."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)

Objectives	Aid	Title	Content	Source
B-A/S-8	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teachers' Guide provides detailed descriptions and continuity. "...Sets, One-To-One matching and equivalent or non-equivalent sets. Addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Inc. Cat.No.UTM 3866-2 Set MM-S1 Includes 78 projectuals (MM-3000 To MM-3070), and Teachers' Guide with explanations, suggestions.
B-A/S-8	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Nonequivalent Sets; Zero and Empty Sets; Ordinals First To Fifth; Ordinals First To Tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and Inequalities; Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 Transparencies, With Individual Sheets of Descriptions, Suggestions. (841-1,2,3,4,10,11,12,18,19,20)
B-A/S-8	FS	Two Properties of Addition	Appropriate subject matter, but the numbers in several frames go beyond the limits for these levels. In each case, the inappropriate portion of the FS may be omitted. "...The associative property...The commutative property..."	Set F-3: "Operations And Whole Numbers 1" #1202 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
B-A/S-8	FS	Using And Understanding Two-And Three Place Numbers	Approximately a third of the FS applies to each of the three objectives; with a given objective, the inappropriate portion of the FS may be omitted. "Understanding and using: (a) The Commutative Principle (b) Number Pairs; Number Sets (c) Number Pairs or Sets That Make Up The Family Of 12,13, or 14. (d) The Number Strip (e) Frames, Such As ⬡ , △ , ▭ , ○ (f) Counting Nos. From 100-200 (g) Addition and Subtraction Nos. To 1000..."	"Using Modern Mathematics-Group 3" Series A537-19 Society For Visual Education, Inc. (SVE) Narrative on FS.
B-A/S-9	TP	Addition And Subtraction	Each projectual can be used with the appropriate objective. Titles: "Introduction To Inequalities; Inequalities Involving 2-Digit Nos.; Combining Sets; Combining and Adding Nos.; Finding Sums of 1-Digit Nos.; Addition Equations About 5; Open Sentences; Introduction To Subtraction Subtraction Equations; Finding Differences; Solving Subtraction Equations; Relation Between Addition and Subtraction."	Elementary School Math-First Grade Series Creative Visuals #511.BB-SS Series of 12 Transparencies (511.BB-15 To 511.BB-26)
B-A/S-9	FS	Addition Equations - 0 Through 9	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part 7 Curtis Circulation Co.

Objectives	Aid	Title	Content	Source
B-A/S-9	FS	Addition Equations - 0 Through 20	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part 12 Curtis Circulation Co. No Narrative
B-A/S-9	TP	Aidition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. "Subtracting multiples of ten; renaming nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's, completing addition sentences and subtraction sentences; sums and differences of 2-,3-,and4-Digit Nos., with and without regrouping; etc...."	Elementary School Math-Second Grade Series Creative Visuals #511.CE-SS Series of 20 transparencies (511.CE-34 To 511.CE-53)
B-A/S-9	FS	Discovery Of Subtraction Facts	"The development of subtraction proceeds from the concept of the missing addend. The idea of □ for a missing number is introduced..."	Kenner on Modern Mathematics-Operations And Relations-Part 1 Series - No. 3 Filmstrip House Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-9	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; subtraction equations; relating addition and subtraction; order of numbers the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
B-A/S-9	FL	Frames	"Purposes: To demonstrate that mathematical sentences can be written to express relationships between knowns and unknowns. To imply that such sentences can be used in solving "Story Problems". To show many different open sentences which can be made true by inserting the same value."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80080 Encyclopaedia Britannica Educational Corp. No. 20080 (Silent); description, suggestions ATTACHED.
B-A/S-9	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. "Develops the structural properties of addition by showing the application of the commutative, associative, identity number, and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 To MT5-15), 50 overlays, and a Teachers' Guide for each transparency.

Objectives	Aid	Title	Content	Source
B-A/S-9	TP	Modern Mathematics	Several TP's devoted to each of these objectives; and Teacher's Guide provides detailed descriptions and continuity. "...Sets, one-to-one matching and equivalent or non-equivalent sets. Addition and subtraction are approached through the union of sets, and the comparison of sets introduces the more than or less than concepts."	Elementary Primary Series United Transparencies Inc. Cat. No. UTM 3866-2 Set MM-S1 Includes 78 projectuals (MM-3000 To MM-3070), and Teachers' Guide with explanations, suggestions.
B-A/S-9	TP	Number Facts -6	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 6; Solving Subtraction Equations About 6; Solving Equations About 6; Relating Addition and Subtraction About 6."	Elementary School Math-First Grade Series Creative Visuals #511.BC-SS Series of 4 transparencies (511.BC-27 To 511.BC-30)
B-A/S-9	TP	Number Facts - 7 and 8	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 7; Solving Subtraction Equations About 7; Solving Addition-Subtraction Equations About 7; Relating Addition and Subtraction -7; Solving Addition Equations About 8; Solving Subtraction Equations About 8; Relating Addition And Subtraction Equations About 8; Inequalities Less Than 8."	Elementary School Math-First Grade Series Creative Visuals #511.BE-SS Series of 8 transparencies (511.BE-31 To 511.BE-38)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-9	FS	Solving Equations: Subtraction	Purposes: "To provide the children with an opportunity to investigate subtraction equations and to determine the missing number in subtraction equations with placeholders in different positions."	Modern Arithmetic Series - Grades 1 & 2 - Set 2 McGraw-Hill Text-Films #405222 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-9	FS	Subtraction Equations- 0 Through 9	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "... Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series Part 9 Curtis Circulation Co. No Narrative.
B-A/S-9	FS	Subtraction Equations- 0 Through 20	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series- Part 13 Curtis Circulation Co. No Narrative

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-A/S-9	TP	Number Facts - 9 and 10	Each projectual can be used with the appropriate objective. Titles: "Solving Addition Equations About 9; Solving Subtraction Equations About 9; Relating Addition and Subtraction About 9; Relating Addition and Subtraction Equations About 9; Addition Equations About 10; Subtraction Equations About 10; Relating Addition And Subtraction Equations About 10."	Elementary School Math-First Grade Series Creative Visuals #511.BF-SS Series of 7 transparencies (511.BF-39 To 511.BF-45)
B-A/S-9	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition On The Number Line; Subtraction On The Number Line; Solving Addition and Subtraction Equations On The Number Line; Introduction To Fractional Numerals; Fractional Numbers."	Elementary School Math-First Grade Series Creative Visuals #511.BJ-SS Series of 5 Transparencies (511.BJ-59 To 511.BJ-63)
B-A/S-9	FS	Solving Equations: Addition	Purposes: "To provide the children with an opportunity to investigate addition equations and to determine the missing number in addition equations with placeholders in different pos itions."	Modern Arithmetic Series-Grades 1 & 2 - Set 2 McGraw-Hill Text-Films #405221 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
B-A/S-9	F	Subtraction For Beginners	Film also reviews several basic subtraction concepts. "We use subtraction to compare sets and find out what the difference is. The subtraction problems are illustrated both with sets and numerals. The -, =, and ≠ signs and the placeholder (□) are explained. The number line is used and the importance of subtraction facts and the concept of subtraction as the inverse of addition are stressed."	(Second Edition of "Subtraction is Easy") Coronet Instructional Films #1690 Teacher's Guide gives description, suggestions, 16MM narrative on soundtrack.
B-A/S-9	FS	Using And Understanding Two-And Three-Place Numbers	Approximately a third of the FS applies to each of the three objectives; with a given objective, the inappropriate portion of the FS may be omitted. "Understanding And Using: a) The Commutative Principle b) Number Pairs; Number Sets c) Number Pairs or Sets That Make Up The Family of 12,13,or 14 d) The Number Strip e) Frames, Such as , , , f) Counting Nos. From 100-200 g) Addition and Subtraction h) Nos. to 1000..."	"Using Modern Mathematics-Group 3" Series A537-19 Society For Visual Education, Inc. (SVE) Narrative on FS
B-A/S-10	F	Adding And Subtracting	"The meaning of adding and subtracting is visually defined with emphasis on the inverse relationship between the operations."	Elementary General Math Series Modern Learning Aids (MLA) #3003 16MM - Narrative on soundtrack

Objectives	Aid	Title	Content	Source
B-A/S-10	FS	Experiences With Comparisons		Arithmetical Experiences For The Third Year Eye Gate House,Inc. #51-H Narrative on FS; Teachers' Manual gives suggested activities.
B-A/S-10	FS	Introduction To Problem Solving	Purposes: "To help the children learn to use equations to solve story problems."	Modern Arithmetic Series-Grades 1 and 2 McGraw-Hill Text Films #405423 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-10	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No.662 Contains 23 transparencies
B-A/S-10	FS	Problem Solving-Addition And Subtraction	Purposes: "To provide an opportunity for the children to relate addition and subtraction equations to situations involving sets and subsets."	Modern Arithmetic Series-Grades 1 & 2 - Set 2 McGraw-Hill Text-Films #405226 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
B-A/S-10	FS	Subtract To Find Out	"Questions which may be answered by subtraction."	Seeing The Use of Numbers Series-Set II- Number 6 Eye Gate House, Inc. #106-F Correlated with "Learning To Use Arithmetic-Book 2" (D.C. Heath and Co.) Narrative on FS; Teachers' Manual gives description, suggestions.

Objectives	Aid	Title	Content	Source
B-Frac-1	TP	Building Concept In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates,Inc. Contains 43 transparencies (with 128 overlays), related to film and FS series' of same name.
B-Frac-1	FS	What One Half Means	FS is applicable to any or all of these objectives. "This filmstrip is intended to develop an understanding of the meaning of one half."	Mathematics For Primary Grades Series No. 1020-Filmstrip 6 (#1026) The Jam Handy Organization Narrative on FS
B-Frac-2	FS	What One Half Means	SAME AS ABOVE SEE B-Frac-1	SAME AS ABOVE SEE B-Frac-1
B-Money-2	FS	Time And Money	First half of FS covers D-Time-3, and second half covers B-Money-2--- The two parts are unrelated. The first half (time) is very elementary for this level, and only covers times exactly on the hour (? o'clock, etc.) "Telling time by the hour and using coins to ten cents."	Seeing The Use Of Numbers Series (#103) Set 1-Filmstrip H Eye Gate House, Inc. #103-H Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions correlated with "Learning To Use Arithmetic-Book 1" (D.C. Heath and Co.)
B-Money-2	FS	Time And Money	First half of FS is D-Time-2, and second half is B-Money-2. The two parts are unrelated. "....Telling Time and Recognizing Money...."	Work And Play With Numbers Series #27) Eye Gate House, Inc. #27-D Narrative on FS; Teachers' Manual gives nature and purpose of the FS.

Objectives	Aid	Title	Content	Source
B-Money-4	FS	Learning About And Using Pennies, Nickels, And Dimes	Covered Concepts: 1. Recognizing simple coins and their values. 2. Associating No. Symbols and Oral No. words. 3. Comparing as to size, order, and position. 4. Increasing and decreasing nos. 5. Recognizing the no. of coins, with and without counting. 6. Associating the correct value with each coin. 7. Understanding the correct relationship between- (a) The penny & the nickel (b) The penny & the dime (c) The nickel & the dime	Using and Understanding Numbers Series A537-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
B-Money-4	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals And Their Names; Writing The Numerals 1 through 5; Writing The Numerals 6 through 10; Counting By 2's; Learning To Count By 5's and 10's; Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar) Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teachers' Manual, and carrying case.

Objectives	Aid	Title	Content	Source
B-Time-1	FS	Time For Everthing	Not a practical exercise for this objective, but an appropriate introduction to the concept of time and clocks. "...Subtitled" How We Use Time"... Almost everything we do must be done within certain time limits...time an important dimension...many things done the same time every day... clocks most frequently used devices for measuring time ..,ways of telling time other than clock...."	Set H-16: "Time" #914 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
B-SOM-1	FS	"Big and Small, Short and Tall"	"...Measurement involves comparison.. the same thing can look big or small in different situations...size is not a measure of value or power..."	Set H-15: "Measurement" #945 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
B-SOM-1	FS	Comparing Sizes	"Children use many quantitative terms in their natural experiences. This filmstrip is intended to clarify the meanings and to develop the understandings of some of these words by visualizing size relationships."	Mathematics For Primary Grades Series No. 1020-Filmstrip 2 (#1022) The Jam Handy Organization Narrative on FS
B-SOM-2	FS	How A Ruler Helps Us	General Introduction to the ruler. "...Measuring is the selection of a specific unit that everyone knows about...a unit of measurement is a means of communicating a specific quantity..."	Set H-15: "Measurement" #998 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
B-SOM-2	FS	How Long Is It? (Measuring)	FS covers both of these objectives. "...Rulers and yardsticks help us measure exactly...inches, feet, and yards are used in measuring length... most rulers are one foot long...foot is 12 inches long...inches are used for measuring things too small to be measured by feet...yard is 3 feet long..."	Set H-15:"Measurement" #921 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide Gives Frame-By-Frame description, suggestions.
B-SOM-2	FS	Measuring How Long	"This filmstrip is intended to develop basic understandings of simple linear measurements..."	Mathematics For Primary Grades Series No. 1020-Filmstrip 7 (#1027) The Jam Handy Organization Narrative on FS
B-SOM-2	TP	Sets of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing Line Segments; Congruent Line Segments; Measuring Line Segments; Lines and Rays; Units of Measure; Using Standard Units of Length; Rays and Angles; Triangles."	Elementary School Math-Second Grade Series Creative Visuals #511.CC-SS Series of 8 Transparencies (511.CC-26 To 511.CC-33)

Objectives	Aid	Title	Content	Source
B-SOM-3	FS	How Long Is It? (Measuring)	FS covers both of these objectives. "...Rulers and yardsticks help us measure exactly...inches, feet, and yards are used in measuring length... most rulers are one foot long...foot is 12 inches long...inches are used for measuring things too small to be measured by feet...yard is 3 feet long..."	Set H-15: "Measurement" #921 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
B-SOM-3	FS	Measuring How Long	"This filmstrip is intended to develop basic understandings of simple linear measurements..."	"Mathematics For Primary Grades" Series No. 1026-Filmstrip 7 (#1027) The Jam Handy Organization Narrative on FS
B-SOM-4	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals And Their Names; Writing The Numerals 1 Through 5; Writing The Numerals 6 Through 10; Counting By 2's; Learning to Count By 5's And 10's Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals And Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teachers' Manual, and carrying case.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
B-SOM-4	TP	Primary Arithmetic	Each projectual can be used with the appropriate objective. Titles: "Number Names And Symbols: Writing Numbers; Counting By 2's; Counting By 5's And 10's To 100; Adding Horizontally; Adding Vertically; Subtracting Vertically; Subtracting Horizontally; Number Charts; Big and Little, Large and Small; One-Half; One Dozen (12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12), various plastic cutouts, and Teacher's Manual.
B-GEOM-1	FS	Introducing Shapes		Mathematics And Art Series #A-123 Your Lesson Plan Filmstrips Inc. Narrative on FS
B-GEOM-1	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 Contains 27 transparencies
B-GEOM-2	F	Introducing Shapes, Lines And Angles	Several concepts and terms are touched upon which are beyond this objective; these may be virtually ignored. In general, however, the film is appropriate for this objective, in that it extensively covers the circle, square, triangle, and rectangle. "By outlining familiar objects, we discover four shapes: A circle, triangle, rectangle and square. We see that shapes are made from lines and parts of lines and that a line is a set of points. We learn the geometric definitions of lines, line segments rays and angles."	Coronet Instructional Films #1695 16 MM- Narrative on soundtrack

Objectives	Aid	Title	Content	Source
C-NUM-4	TP	Primary Arithmetic	Each projectual can be used with the appropriate objective. Titles: "Number Names And Symbols; Writing Numbers; Counting By 2's; Counting By 5's and 10's to 100; Adding Horizontally; Adding Vertically; Subtracting Horizontally; Subtracting Vertically; Number Charts; Big and Little, Large and Small; One-Half; One Dozen (12)."	Creative Visuals #511.AO-SR Includes 12 transparencies (511.AO-01 To 511.AO-12) various plastic cutouts, and Teachers' Manual.
C-NUM-5	TP	Primary Arithmetic	SAME AS ABOVE SEE C-NUM-4	SAME AS ABOVE SEE C-NUM-4
C-NUM-6	TP	Primary Arithmetic	SAME AS ABOVE SEE C-NUM-4	SAME AS ABOVE SEE C-NUM-4
C-NUM-6	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals And Their Names; Writing The Numerals 1 Through 5; Writing The Numberals 6 Through 10; Counting By 2's; Learning To Count By 5's And 10's Simple Addition (Horizontal); Simple Addition (Vertical or Columnar); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals And Their Names; Comparison Of Size; One Dozen; Taking Halves; Pennies, Nickels And Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teacher's Manual, and carrying case.

Objectives	Aid	Title	Content	Source
C-NUM-6	FS	Ordering Sets And Ordering Numbers	Good For Odd & Even . When used with B-NUM-1, might omit the odd-even part.	Using Sets And Numbers Series Filmstrip 3 Ginn And Co. & The Jam Handy Organization Narrative on FS, but Teacher's Manual gives Frame-By-Frame explanations, suggestions.
C-NUM-7	FS	Counting To 20 By 1's, 2's, And 5's	"General review of numbers sequence; readiness for multiplication and division."	Seeing The Use of Numbers Series-Set II - Number 2 Eye Gate House, Inc. #106-B Correlated With "Learning To Use Arithmetic Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers' Manual gives description, suggestions.
C-NUM-7	FS	Experiences With Counting	Will also serve to review ordinal nos. and introduce multiplication to some extent.	Arithmetical Experiences For The Third Year Eye Gate House, Inc. #51-F Narrative on FS; Teachers' Manual gives suggested activities.
C-NUM-7	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Nonequivalent Sets; Zero and Empty Sets; Ordinals First to Fifth; Ordinals First to Tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and Inequalities; Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20)

Objectives	Aid	Title	Content	Source
C-NUM-7	TP	Mathematics Readiness	Each projectual can be used with the appropriate objective(s). Titles: "Numerals And Their Names; Writing The Numerals 1 Through 5; Writing The Numerals 6 Through 10; Counting By 2's; Learning To Count By 5's And 10's; Simple Addition (Vertical or Columnar); Simple Addition (Horizontal); Simple Subtraction (Horizontal); Simple Subtraction (Vertical or Columnar); Matching Sets, Numerals and Their Names; Comparison of Size; One Dozen; Taking Halves; Pennies, Nickels and Dimes."	Tweedy Transparencies Series 1400 Includes 14 transparencies, 80 acetate cutouts, Teachers' Manual, and carrying case.
C-NUM-7	FS	Modern Mathematics: Sets By 1's, 2's, 5's, 10's	"Associating number symbols (numerals) and oral number words (Names) with small sets (groups) of concrete objects by 1's, 2's, 5's, 10's."	Using Modern Mathematics-Group 1-2 Series A531-8 Society For Visual Education, Inc. (SVE) Narrative on FS.
C-NUM-7	FS	Modern Mathematics: Sets By 2's, 3's, 4's, 5's	Also serves to introduce counting by 3's and 4's. "...Teaches counting both "up and down" ... counting by 2's, 3's, 4's, and 5's..."	Using Modern Mathematics-Group 2 Series A531-12 Society For Visual Education, Inc. (SVE) Narrative on FS.
C-NUM-7	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No. 662 Contains 23 transparencies.

Objectives	Aid	Title	Content	Source
C-NUM-7	TP	Sets And Numbers	Each projectual can be used with the appropriate objective. Titles: "One-To-One Matching; Equivalent Sets; Equal Sets; The Nos. 1 and 2; The Nos. 3 and 4; The Nos. 5 and 6; The Nos. 7 and 8; The Nos. One Through Eight; Sets of Tens; 2-Digit Nos.; Reading And Writing 2-Digit Numerals; Numerals 0 Through 10; Number Order Within A Decade; "Skip Counting",..."	Elementary School Math-First Grade Series Creative Visuals #511.BA-SS Series of 14 transparencies (511.BA-01 To 511.BA-14)
C-PV-1	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping By Tens; Place Value: 2-Digit; Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets And Adding Numbers."	Elementary School Math-Second Grade Series Creative Visuals #511.CA-SS Series of 9 transparencies (511.CA-01 To 511.CA-09)
C-PV-1	FS	Tens And Hundreds Notation	When used with B-PV-2, end of FS may be too advanced, and may be omitted or used as introductory material; with C-PV-1, most of FS may serve as review material. "The main concept here is the importance of place value in our numeral notation."	Kenner On Modern Mathematics Operations and Relations-Part 2 Series - No. 1 Filmstrip House Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
C-PV-1	FS	Understanding Hundreds, Tens, And Ones	"Place value in three-place numbers."	Seeing The Use of Numbers Series-Set II-Number 7 Eye Gate House, Inc. #106-G Correlated with "Learning To Use Arithmetic Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers' Manual gives description, suggestions.
C-PV-1	FS	Understanding The Structure of Numbers	Not everything on FS is directly related to this objective; it also touches upon money, counting by 2's, 5's, etc. "Understanding and working with numbers eleven to twenty...recognizing the place value of two-place numbers ...counting by 1's,2's,3's and 5's on a number chart...counting money, using dimes and pennies..."	Using Modern Mathematics-Group 3 Series A537-18 Society For Visual Education, Inc. (SVE) Narrative on FS
C-PV-3	FS	Basic Subsets And The Empty Set	First a good review of sets, empty sets, etc; then emphasis on place value (Title Misleading).	Using Sets and Numbers Series Filmstrip 4 Ginn and Co. & The Jam Handy Organization Narrative on FS, but Teachers' Manual gives Frame-By-Frame explanations, suggestions.
C-PV-3	FS	Decimal Whole Numbers		Learning New Numbers...Decimals Series No. 1 Filmstrip House Narrative on FS

Objectives	Aid	Title	Content	Source
C-PV-3	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 contains 27 transparencies
C-PV-3	TP	Sets-Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; Equal Sets; Comparison of Numerals; Partitioning Sets; Grouping By Tens; Place Value 2-Digit; Place Value: 3-Digit; Place Value: 4-Digit; Joining Sets and Adding Numbers."	Elementary School Math- Second Grade Series Creative Visuals #511.CA-SS Series of 9 transparencies (511.CA-01 To 511.CA-09)
C-PV-3	FS	Using And Understanding Two-And Three-Place Numbers	Approximately a third of the FS applies to each of the three objectives; with a given objective, the inappropriate portion of the FS may be omitted. "Understanding And Using: a) The Commutative Principle b) Number Pairs; Number Sets c) Number Pairs or Sets That Make Up The Family of 12,13, or 14 d) The Number Strip e) Frames, such as □ , △ , ▭ , 0 f) Counting Nos. From 100-200 g) Addition and Subtraction h) Nos. to 1000..."	Using Modern Mathematics-Group 3 Series A537-19 Society For Visual Education, Inc (SVE) Narrative on FS

Objectives	Aid	Title	Content	Source
C-PV-3	FS	Zero, Place Holder		Mathematics Series #A-90 Your Lesson Plan Filmstrips Inc. Narrative on FS.
C-PV-4	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger Numberals; Ancient Roman Numerals; The Abacus; Hindu Numerals; Place-Value Numerals; The Numeral 10; From 99 to 100; The Importance of "0"; Digits; Expanded Notation-Part 1; Expanded Notation-Part 2..."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 To MT2-12), 40 overlays, and a Teachers Guide for each transparency.
C-PV-5	FS	Zero, Place Holder		Mathematics Series #A-90 Your Lesson Plan Filmstrips Inc. Narrative on FS
C-ADD-1	FS	Adding And Subtracting Two-Place Numbers	"Adding and subtracting tens, and tens and ones, with no regrouping of sums and minuends (no carrying or borrowing)."	Seeing The Use of Numbers Series-Set II-Number 8 Eye Gate House, Inc. #106-H Correlated with "Learning To Use Arithmetic-Book2" (D.C. Heath and Co.) Narrative on FS; Teachers Manual gives description, suggestions.

Objectives	Aid	Title	Content	Source
C-ADD-1	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. "Subtracting multiples of ten; re-naming nos.; subtracting 1's,10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's, completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-Digit Nos., with and without regrouping; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CE-SS Series of 20 transparencies (511.CE-34 To 511.CE-53)
C-ADD-1	FS	Addition: Thirty-Six More Combinations	All frames show sums of 11 through 18 in this form: 9 $\frac{8}{17}$	Basic Numbers-Speed-1-O-Strip Series A536-13 Society For Visual Education, Inc. (SVE) Narrative on FS
C-ADD-1	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 To MT7-14), 46 over-lays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
C-ADD-1	FS	Let's See How To Add By Endings	FS actually deals with problems with a two-digit addend and a one-digit addend; but it provides an appropriate introduction to this objective. "Adding by endings to produce the upper decade addition facts to 99; no bridging, that is, all sums are in the same decade as the larger addend."	Seeing The Use Of Numbers Series (#124) Set III-Filmstrip B Eye Gate House, Inc. #124-B Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic -Book 3" (D. C. Heath And Co.)
C-ADD-1	FS	Using The Teen Facts	First half of FS (addition) has a two-digit addend and a one-digit addend in each problem. Second half of FS (subtraction) has a two-digit minuend and a one-digit subtrahend in each problem. "Adding and subtracting by endings where the number of tens in the answer is different from the number of tens in the larger addend or the minuend."	Seeing The Use Of Numbers Series (#124) Set III-Filmstrip D Eye Gate House, Inc. #124-D Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic-Book 3" (D. C. Heath And Co.)
C-ADD-2	FS	Addition Patterns	"Basic patterns of commutativity and associativity of addition, the fact that addition is binary operation, and the importance of conditions in stating a mathematical problem."	Kenner On Modern Mathematics-Extending Arithmetic Series-No. 1 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.

Objectives	Aid	Title	Content	Source
C-ADD-2	TP	Addition Properties	Each projectual can be used with the appropriate objective. Titles: "The Order Property Of Addition; More About The Order Property Of Addition; The Use Of Parenthesis In Addition; Sums of Three Numbers; Parenthesis And Grouping; Introduction To The Grouping Property Of Addition; The Grouping Property Of Addition."	Elementary School Math-First Grade Series Creative Visuals #511.BG-SS Series of 7 transparencies (511.BG-46 To 511.BG-52)
C-ADD-2	FS	Column Addition	"Three Addends, Sums to 10."	Seeing The Use Of Numbers Series-Set II- Number 5 Eye Gate House, Inc. #106-E Correlated with "Learning To Use Arithmetic - Book 2" (D. C. Heath And Co.) Narrative on FS; Teachers Manual gives description, suggestion.
C-ADD-3	FS	Addition & Subtraction: Greater Than-Less Than-Equal	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part 15. Curtis Circulation Co. No narrative

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Objectives	Aid	Title	Content	Source
C-ADD-3	FS	Addition & Subtraction: Greater Than-Less Than-Equal	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part II Curtis Circulation Co. No Narrative
C-ADD-3	FS	Learning About Inequalities	Purposes: "To review comparison of the numbers of sets and to introduce inequalities."	Modern Arithmetic Series Grades 1 and 2 McGraw-Hill Text-Films #405425 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
C-ADD-3	FS	Solving Inequalities	Purposes: "To provide the children with an opportunity to investigate inequalities and to determine the numbers that could be used in placeholder inequalities to make statements true."	Modern Arithmetic Series-Grades 1 & 2 - Set 2 McGraw-Hill Text-Films #405223 Narrative on FS; Filmstrip Guide gives Frame-By-Frame Explanations, suggestions.

Objectives	Aid	Title	Content	Source
C-ADD-4	F	Addition For Beginners	Film first reviews basic addition sentence, commutative law (which it calls "Rule of Order), and column addition with three addends. It refers to the associative principle as the "Rule of Grouping". "After reviewing the concepts of set, number and numeral, the film explores and develops the nomenclature and symbols of addition including the law of order, addition with zero, the use of the number line in addition, and the law of grouping."	(Second edition of "Addition Is Easy") Coronet Instructional Films #1689 Teachers Guide for description, suggestions. 16MM-Narrative on soundtrack.
C-ADD-4	TP	Addition Properties	Each projectual can be used with the appropriate objective. Titles: "The Order Property Of Addition; More About The Order Property Of Addition; The Use Of Parenthesis In Addition; Sums of Three Numbers; Parenthesis And Grouping; Introduction To The Grouping Property Of Addition; The Grouping Property Of Addition ."	Elementary School Math-First Grade Series Creative Visuals #511.BG-SS Series of 7 transparencies (511BG-46 To 511.BG-52)
C-ADD-4	FS	Changing The Grouping: Addition And Subtraction	Purposes: "To provide an opportunity for the children to investigate the results of changing the grouping when putting sets together and taking sets apart, and when adding and subtracting numbers. To help the children understand the associative property of addition."	Modern Arithmetic Series-Grades 3 and 4 McGraw-Hill Text-Films #405430 Narrative on FS; Filmstrip Guide gives Frame-By-Frame Explanations, suggestions.

Objectives	Aid	Title	Content	Source
C-ADD-4	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; relating Addition and Subtraction; Subtraction Equations; order of numbers; the order principle of addition; use of parenthesis; the grouping principle of addition; combinations of ten; combinations greater than ten; etc...."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 To 511.CB-25)
C-ADD-4	TP	New Math	Each projectual can be used with the appropriate objective. Titles: "Discovering Sets; Concept of Sets; Equivalent and Nonequivalent Sets; Zero and Empty Sets; Ordinals First to Fifth; Ordinals First to Tenth; Counting by 1's, 2's, 5's, and 10's; Equalities and Inequalities; Commutative Property; Associative Property."	Instructo Corporation No.841-A Series of 10 transparencies, with individual sheets of descriptions, suggestions. (841-1,2,3,4,10,11,12,18,19,20)
C-ADD-4	TP	Preparing For Addition And Subtraction	Each projectual can be used with the appropriate objective. "Combinations through tens."	Mathematics No. 16 3M Visual Products Cat.No. 662 Contains 23 transparencies.
C-ADD-4	FS	Two Properties of Addition	Appropriate subject matter, but the numbers in several frames go beyond the limits for these levels. In each case, the inappropriate portion of the FS may be omitted. "...The associative property...the commutative property..."	Set F-3: "Operations and Whole Numbers 1" #1202 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
C-ADD-5	TP	Addition Properties	Each projectual can be used with the appropriate objective. Titles: "The Order Property of Addition; More About the Order Property of Addition; The Use of Parenthesis in Addition; Sums of Three Numbers; Parenthesis and Grouping; Introduction To the Grouping Property of Addition; The Grouping Property of Addition."	Elementary School Math-First Grade Series Creative Visuals #511.BG-SS Series of 7 transparencies (511.BG-46 To 511.BG-52)
C-ADD-5	TP	Equations-Number Line	Each projectual can be used with the appropriate objective. "Solving an equation; finding sums; subtraction equations; relating addition and subtraction; order of numbers; the order principle of addition; the grouping principle of addition; combinations of ten; combinations greater than ten; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CB-SS Series of 16 transparencies (511.CB-10 to 511.CB-25)
C-ADD-5	TP	Place Value	Each projectual can be used with the appropriate objective. Titles: "The Meaning of Place Value; Sums of Tens; Finding a Sum Greater Than Ten; Solving Equations of Sums Greater Than 10; Solving Subtraction Equations Less than 18; Subtraction Combinations Less than 18."	Elementary School Math-First Grade Series Creative Visuals #511.BH-SS Series of 6 transparencies (511.BH-53 to 511.BH-58)

Objectives	Aid	Title	Content	Source
C-SUB-1	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT 7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 To MT7-14) 46 overlays, and a Teachers Guide for each transparency.
C-SUB-1	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. "Subtracting multiples of ten; renaming nos.; subtracting 1's,10's and 100's; adding multiples of ten; adding 1's, 10's, 100's, completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit nos., with and without regrouping; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CE-SS Series of 20 transparencies (511.CE-34 To 511.CE-53)
C-SUB-1	FS	Let's See How To Subtract By Endings	Sums in FS are up through 99, with one-digit subtrahends. "Minuends to 99; remainders in the same decade as the minuend."	Seeing The Use of Numbers Series (#124) Set III - Filmstrip C Eye Gate House, Inc. #124-C Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning to Use Arithmetic - Book 3" (D. C. Heath and Co.)

Objectives	Aid	Title	Content	Source
C-SUB-1	FS	Using The Teen Facts	First half of FS (Addition) has a two-digit addend and a one-digit addend in each problem. Second half of FS (subtraction) has a two-digit minuend and a one-digit subtrahend in each problem. "Adding and subtracting by endings where the number of tens in the answer is different from the number of tens in the larger addend or the minuend."	Seeing The Use Of Numbers Series (#124) Set III-Filmstrip D Eye Gate House, Inc. #124-D Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic-Book 3" (D.C. Heath and Co.)
C-SUB-1	FS	Work And Play With Numbers 12 & 13	FS covers each addition fact followed by the corresponding subtraction fact.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-B Narrative on FS; Teachers Manual gives suggestions.
C-SUB-1	FS	Work And Play With Numbers 14 & 15	FS covers each addition fact followed by the corresponding subtraction fact.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-C Narrative on FS; Teachers Manual gives suggestions.
C-SUB-1	FS	Work And Play With Numbers 16 & 17	FS covers each addition fact followed by the corresponding subtraction fact.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-D Narrative on FS; Teachers Manual gives suggestions.

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Objectives	Aid	Title	Content	Source
C-SUB-1	FS	Number Stories of 13 to 18	"Addition and subtraction families, sums and minuends of 13 to 18."	Seeing The Use of Numbers Series-Set II- Number 10 Eye Gate House, Inc. #106-J Correlated with "Learning To Use Arithmetic - Book 2" (D.C. Heath And Co.) Narrative on FS; Teachers Manual gives description, suggestions.
C-SUB-1	TP	Place Value	Each projectual can be used with the appropriate objective. Titles: "The Meaning of Place Value; Sums of Tens; Finding a Sum Greater Than Ten; Solving Equations of Sums Greater than 10; Solving Subtraction Equations Less Than 18; Subtraction Combinations Less Than 18."	Elementary School Math-First Grade Series Creative Visuals #511.BH-SS Series of 6 transparencies (511.BH-53 to 511.BH-58)
C-SUB-1	FS	Subtraction: Thirty-Six More Combinations	All frames show subtraction problems with minuends 11 through 18 and differences 2 through 9, in this form: 16 $\frac{9}{7}$	Basic Numbers-Speed-1-O-Strip Series A536-17 Society For Visual Education, Inc. (SVE) Narrative on FS

Objectives	Aid	Title	Content	Source
C-SUB-1	FS	Work And Play With Number 18	FS covers each addition fact followed by the corresponding subtraction fact.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-E Narrative on FS; Teachers Manual gives suggestions.
C-SUB-2	FS	Adding And Subtracting Two-Place Numbers	"Adding and subtracting tens, and tens and ones, with no regrouping of sums and minuends (no carrying or borrowing)."	Seeing The Use Of Numbers Series-Set II-Number 8 Eye Gate House, Inc. #106-H Correlated with "Learning To Use Arithmetic-Book 2" (D. C. Heath and Co.) Narrative on FS; Teachers Manual gives description, suggestions.
C-SUB-2	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. "Subtracting multiples of ten; renaming nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit nos., with and without regrouping; etc..."	Elementary School Math-Second Grade Series Creative Visuals #511.CE-SS Series of 20 transparencies (511.CE-34 To 511.CE-53)

Objectives	Aid	Title	Content	Source
C-SUB-2	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. "Demonstrates computation (Addition and Subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 To MT7-14), 46 overlays, and a teachers guide for each transparency.
C-SUB-3	FS	Subtraction Patterns	"...Develops the idea that the order of two numbers is important in subtraction...the entire FS relates ideas about subtraction to addition."	"Kenner on Modern Mathematics-Extending Arithmetic"Series-No. 2 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
C-SUB-4	FS	Addition & Subtraction: Greater Than-Less Than-Equal	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "... Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part 15 Curtis Circulation Co. No narrative

Objectives	Aid	Title	Content	Source
C-SUB-4	FS	Addition & Subtraction: Greater Than-Less Than-Equal	Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's minc."	Kit No. 1-Primary-Modern Mathematics-Drill Series-Part II Curtis Circulation Co. No Narrative
C-SUB-4	FS	Learning About Inequalities	Purposes: "To review comparison of the numbers of sets and to introduce inequalities."	Modern Arithmetic Series-Grades 1 and 2 McGraw-Hill Text-Films #405425 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
C-SUB-4	FS	Solving Inequalities	Purposes: "To provide the children with an opportunity to investigate inequalities and to determine the numbers that could be used in placeholder inequalities to make statements true."	Modern Arithmetic Series-Grades 1 & 2-Set 2 McGraw-Hill Text-Films #405223 Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
C-COP-1	FS	Work And Play With Number 19	Covers corresponding addition and subtraction facts of 19.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-F Narrative on FS; Teachers Manual gives suggestions.

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Objectives	Aid	Title	Content	Source
C-COP-1	FS	Work And Play With Number 20	Covers corresponding addition and subtraction facts of 20.	Bridging The Decades Series (#40) Eye Gate House, Inc. #40-G Narrative on FS; Teachers Manual gives suggestions.
C-COP-4	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat.No. 559 Contains 27 transparencies
C-COP-4	FS	Missing Numbers	"...Reinforce the idea that some missing number sentences have more - sometimes many more- than one correct answer."	Kenner On Modern Mathematics-Operations and Relations-Part 2 Series - No. 4 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.
C-COP-4	FS	Relation Symbols	"Relation Symbols (=,≠, < ,>) are different kinds of mathematical symbols from numerals and operation symbols..."	Kenner On Modern Mathematics-Operations and Relations-Part 1 Series-No. 2 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
C-COP-5	FS	What sign is missing?	Addition and subtraction equations, 0 through 20, suggested use: (1) Class drill review (2) Individual student study review "content: .....presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No, 1-Primary -Modern Mathematics - Drill Series - Part 14 Curtis Circulation Co. No narrative

Objectives	Aid	Title	Content	Source
C-COP-5	FS	What Sign Is Missing?	Addition and Subtraction Equations, 0 through 9. Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series Part 10 Curtis Circulation Co. No narrative
C-COP-5	FS	What Sign Is Missing?	Addition and Subtraction Equations, 0 through 20. Suggested Use: (1) Class Drill Review (2) Individual Student Study Review "...Presents each equation separately, followed by the correct answer in the next frame. In this way the correct answer is reinforced in the student's mind."	Kit No. 1-Primary-Modern Mathematics-Drill Series Part 14 Curtis Circulation Co. No narrative.
C-COP-6	FS	Frame Arithmetic	FS is an introduction to open sentences (equations); frames dealing with multiplication and division may be omitted. "...Statements (of inequalities)...A statement may be judged true or it may be judged false, but cannot be both true and false...Mathematical sentences which cannot be judged true or false...Only when the frame is filled with a numeral does a statement result ...A solution of a sentence with a frame...The special properties of the numbers one and zero in addition and multiplication..."	Set F-6: Algebra #1214 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
C-COP-6	FS	This Is Algebra	Basically, the FS is an introduction to open sentences (equations) the frames dealing with multiplication and division may be omitted. "...Number sentences and solution of equations...Some mathematical sentences are true and some are false... students are helped to understand the meaning of solution of a equation by "Filling In" the blanks so that true statements result..."	Set F-6: "Algebra" #1203 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame descriptions, suggestions.
C-FRAC-1	FS	Dividing Things Into Parts (Fractions)	FS is actually appropriate for all four of these objectives, as it includes all aspects of level C-Fractions. "...Understandings of unit fractions: ...Anything can be divided into parts ...The parts may be equal or unequal ...Equal parts are fair shares... Most common equal parts are halves, fourths, and thirds...Halves (fourths, thirds) mean two (four, three) equal parts of anything...Nos. of things (groups) can also be divided into parts that are equal or unequal... 1/2, 1/3, 1/4 ..."	Set H-17: "Dividing Things" #942 Popular Schience Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
C-FRAC-1	FS	Fractional Parts of a Whole-1/2, 1/3, 1/4		"Introduction To Fractions" Series-Film 1 The Jam Handy Organization Description & narrative on Filmstrip

Objectives	Aid	Title	Content	Source
C-FRAC-1	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "Introduction to fractions, concept of fractions; fractional number line."	Instructo Corporation No. 830-A Series of 3 transparencies, with individual sheets of descriptions, suggestions. (830-1 to 830-3)
C-FRAC-1	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CH-SS Series of 4 transparencies (511.CH-70 to 511.CH-73)
C-FRAC-1	FS	Seeing The Use of Fractions	Last few frames also touch upon fifths, sixths, and eights, Content: "Meaning and comparative sizes of halves, fourths, and thirds of equal wholes; extension of same ideas to fifths, sixths, and eights."	"Seeing the use of numbers" Series (#124) Set III - Filmstrip A Eye Gate House, Inc.#124-A Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning to Use Arithmetic-Book 3" (D.C. Heath And Co.)

Objectives	Aid	Title	Content	Source
C-FRAC-1	FS	We Have Wholes and Parts of Wholes I	The final third of the FS may be too advanced or somewhat irrelevant; thus it may either be omitted or used as introductory material. Content: "When we want to share a whole thing, we must divide it into parts..... practice dividing whole things into fourths - also called quarters - and comparing halves and fourths...the sizes of different parts of the same whole thing: Some parts can be twice as big as other parts; some parts can be half as big as other parts."	Your Lesson Plan Filmstrips #A-146 Y.L.P. Materials Corporation Narrative on FS.
C-FRAC-2	TP	Building Concepts in Mathematics	The individual transparencies can be be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 Transparencies (with 128 overlays); related to film and FS series' of same name.
C-FRAC-2	FS	How Large Is A Fraction?	Might omit last few frames. Content: "The fraction below the line is the denominator. The denominator shows how many equal parts the object has been divided into...The concept of the relative size of fractions...The equivalence of fractions...	"Fractions" Series #204 Curriculum Films, Inc. Narrative on FS.

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Objectives	Aid	Title	Content	Source
C-FRAC-2	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition on the number line; subtraction on the number line; solving addition and subtraction equations on the number line; introduction to fractional numerals; fractional numbers."	"Elementary School Math-First Grade" Series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 to 511.BJ-63)
C-FRAC-2	FS	Dividing Things Into Parts (Fractions)	FS is actually appropriate for all four of these objectives, as it includes all aspects of level C - Fractions. Content: "...Understanding of unit fractions: ...Anything can be divided into parts ...The parts may be equal or unequal ...Equal parts are fair shares.... Most common equal parts are halves, fourths, and thirds...Halves (Fourths, Thirds) mean two (Four, three) equal parts of anything...Nos. of things (Groups) can also be divided into parts that are equal or unequal..... 1/2, 1/3, 1/4...."	Set H-17: "Dividing Things" #942 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame Description, Suggestions.

Objectives	Aid	Title	Content	Source
C-FRAC-2	FS	What Is A Fraction?	Content: "One is the smallest whole number. Sometimes we want to talk about things smaller than one whole thing -- just parts of things. Fractions are equal parts of something. There are many different fractions, such as: Halves, Thirds, Fourths, Fifths, and Sixths, etc.....Such familiar concepts as one fourth of a sandwich, and one quarter of an hour."	"Fractions" Series #201 Curriculum Films, Inc. Narrative on FS.
C-FRAC-2	FS	Writing Fractions	Also introduces "denominator" and "numerator" terminology. Content: "...How fractions are written...The number below the line tells the number of equal parts into which the whole has been divided....The number above the line tells the number of equal parts that we are talking about."	"Fractions" Series #202 Curriculum Films Narrative on FS
C-FRAC-2	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "one-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CH-SS Series of 4 transparencies (511.CH-70 to 511.CH-73)

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Objectives	Aid	Title	Content	Source
C-FRAC-3	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition on the number line; subtraction on the number line; solving addition and subtraction equations on the number line; introduction to fractional numerals; fractional numbers."	"Elementary School Math-First Grade" series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 to 511.BJ-63)
C-FRAC-3	FS	Fractional Parts of Groups -1/2, 1/3, 1/4"	Uses division	"Introduction To Fractions" Series - Film 2 The Jam Handy Organization Narrative on Filmstrip
C-FRAC-3	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CH-SS Series of 4 transparencies (511.CH-70 to 511.CH-73)

Objectives	Aid	Title	Content	Source
C-FRAC-3	FS	Dividing Things Into Parts (Fractions)	FS is actually appropriate for all four of these objectives, as it includes all aspects of level C-Fractions Content: "...Understandings of unit fractions: ....anything can be divided into parts ....the parts may be equal or unequal ....equal parts are fair shares... most common equal parts are halves, fourths, and thirds...halves (fourths, thirds) mean two (four, three) equal parts of anything...nos. of things (groups) can also be divided into parts that are equal or unequal..... 1/2, 1/3, 1/4....."	Set H-17: "Dividing Things" #942 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame Description, Suggestions.
C-FRAC-4	FS	Dividing Things Into Parts (Fractions)	FS is actually appropriate for all four of these objectives, as it includes all aspects of level C - Fractions. Content: "...Understandings of unit fractions: ...anything can be divided into parts ...the parts may be equal or unequal.. equal parts are fair shares...most common equal parts are halves, fourths, and thirds...halves (fourths, thirds) mean two (four, three) equal parts of anything...nos. of things (groups) can also be divided into parts that are equal or unequal.....1/2, 1/3, 1/4....."	Set H-17: "Dividing Things" #942 Popular Science Publishing co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame Description, Suggestions.

Objectives	Aid	Title	Content	Source
C-FRAC-4	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); Related to film and FS Series' of same name.
C-FRAC-4	TP	Number Line	Each projectual can be used with the appropriate objective. Titles: "Addition on the number line; subtraction on the number line; solving addition and subtraction equations on the number line; introduction to fractional numerals; fractional numbers."	"Elementary School Math-First Grade" Series Creative Visuals #511.BJ-SS Series of 5 transparencies (511.BJ-59 to 511.BJ-63)
C-FRAC-4	FS	Experiences With Fractions		"Arithmetical Experiences For The Third Year" Eye Gate House, Inc. #51-I Narrative on FS; Teachers Manual gives suggested activities.

Objectives	Aid	Title	Content	Source
C-MONEY-2	TP	Clocks-Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CG-SS Series of 5 transparencies (511.CG-65 to 511.CG-69)
C-MONEY-2	FS	Modern Mathematics: Pennies, Nickels, Dimes, And Quarters	FS appropriate for either objective, or both (omitting inappropriate frames in each case). Content: "Recognizing simple coins and their values.... Recognizing the number of coins.... Associating the correct value with each coin..... Understanding the correct relationship between -- a) The penny and the nickel b) The penny and the dime C) The nickel and the dime....."	"Using Modern Mathematics - Group 1-1" Series A531-5 Society for Visual Education, Inc. (SVE) Narrative on FS.
C-MONEY-3	FS	Modern Mathematics: Pennies, Nickels, Dimes, And Quarters	FS appropriate for either objective, or both (omitting inappropriate frames in each case). Content: "Recognizing simple coins and their values.... Recognizing the number of coins.... Associating the correct value with each coin..... Understanding the correct relationship between -- a) The penny and the nickel b) The penny and the dime c) The nickel and the dime...."	"Using Modern Mathematics - Group 1-1" Series A531-5 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
C-MONEY-3	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
C-MONEY-3	FS	Money Experiences		"Development of Number Concepts" Series Curriculum Films #640 Narrative on FS.
C-SOM-1	FS	Early Measuring	Historical, not practical	"Man And Measures" Series Filmstrip House Narrative on FS.
C-SOM-1	FS	History Of Linear Measures	Historical overview	History of Measure Series McGraw-Hill Book Co. #400136 Narrative on FS.
C-SOM-1	FS	Let's Measure: Inches, Feet, And Yards	Content: "....Explains a foot ruler, then a yardstick, and the units of length.... finds the length of familiar objects, and estimates inches, feet, and yards."	Coronet Instructional Films #705 Teacher's Guide gives Description, Suggestions. 16 MM- Narrative on Soundtrack.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
C-SOM-1	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; Congruent line segments; Measuring line segments; Lines and rays; Units of measure; Using standard units of length Rays and angles; Triangles."	"Elementary School Math-Second Grade" Series Creative Visuals #511.CC-SS Series of 8 transparencies (511.CC-26 to 511.CC-33)
C-SOM-1	FS	Using Measures (Community)	First part of FS concerns time; the rest concerns measurement of various things in general. Provides an overview to measurement, including time. Content: "Everywhere we go, in almost everything we do, we measure things, one thing that we measure is time..... .....Liquids, distance, money, speed, and heat measured in our community."	Your lesson plan filmstrips #A-144 Y.L.P. Materials Corporation Narrative on FS.
C-SOM-2	FS	More Experiences With Measurements	First half of FS covers C-SOM-2, and second half E-TIME-1 -- The two parts are unrelated. In the first half, the FS also reviews the definition of the Yard.	"Arithmetical Experiences For The Third Year" Eye Gate House, Inc. #51-C Narrative on FS; Teachers Manual gives suggested activities.

Objectives	Aid	Title	Content	Source
C-SOM-3	FS	How Much Will It Hold?	Content: "....By measuring, we can transpose non-standard quantities into standard quantities....A quart is the same whether it is measured in a quart container or a quart measure....A quart consists of 2 pints, or of 4 measuring cups...."	Set H-15: "Measurement" #930 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
C-SOM-3	FS	Measuring How Much	When used with C-SOM-3, the portion of the FS beyond the scope of it may be omitted; with D-SOM-2, some of the FS will be review. Content: "This filmstrip is intended to develop basic understandings of simple liquid measurements. It includes recognition of the units of liquid measureing cups, pints, quarts, half-gallons and gallons and the relationship between the units of liquid measure."	"Mathematics For Primary Grades" Series No. 1020 - Filmstrip 8 (#1028) The Jam Handy Organization Narrative on FS.
C-SOM-3	FS	Using Measures (Home)	Emphasis is on general measurement of liquids and foods in the home; an introduction. Content: "What kinds of things are measured in our homes? We will practice measuring as breakfast is made."	Your Lesson Plan Filmstrips #A-142 Y.L.P. Materials Corporation Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
C-SOM-3	FS	Using Measures (Stores)	Overview to measurement (Ruler, dozen, quart, pound, etc.) in general. Content: "There are reasons for measuring things....Why measuring is important to all of us....some of the things we measure with. We will go shopping, and watch how things are measured."	Your Lesson Plan Filmstrips #A-143 Y.L.P. Materials Corporation Narrative on FS.
C-GEOM-1	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies.
C-GEOM-1	FS	The Shapes Of Things	FS has portions appropriate to each of these two objectives; advanced or irrelevant frames may be omitted. Content; "...Things are shaped on mathematical ideas....students' attention focused on everyday things; then learn the more specific, mathematical words to describe them....circles, squares, rectangles, and triangles are closed figures....circles, squares, rectangles, and triangles are not solids.... spheres, cylinders, and cones are solids...."	#1024 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
C-GEOM-2	FS	The Shapes Of Things	FS has portions appropriate to each of these two objectives; advanced or irrelevant frames may be omitted. Content: "....Things are shaped on mathematical ideas....students' attention focused on everyday things; then learn the more specific, mathematical words to describe them....circles, squares, rectangles, and triangles are closed figures....circles, squares, rectangles, and triangles are not solids....spheres, cylinders, and cones are solids...."	#1024 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.
C-GEOM-2	FS	Experiences With Numbers	Actually a review of various subjects (num., time, som, etc.), but main emphasis is GEOM.	"Arithmetical Experiences For The Third Year" Eye Gate House, Inc. #51-G Narrative on FS; Teachers Manual gives suggested activities.
C-S.T.-1	FS	Early Counting	Historical, not practical	"Man and Measures" series Filmstrip House Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
C-S.T.-1	FS	Our Number System	Aspects of arabic number system discussed will be heavily review; will lead into Roman no. system. "Content: This filmstrip deals with the hindu-arabic number system, the one we commonly use today. It shows that number systems developed slowly through the ages. It stresses the fact that our number system is one of many. It develops the characteristics that make our number system the most efficient one invented so far, using only 9 digits and a zero, and place value."	"New Horizons in Arithmetic" Series McGraw-Hill Text - Films #116213 Narrative on FS, BUT Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
C-S.T.-1	FS	Roman Numerals	With C-S.T.-1, the latter part of the FS may be too advanced, and may be omitted or serve as introductory material; with D-S.T.-1, the first part will be review.	"Mathematics" Series #A-127 Your Lesson Plan Filmstrips, Inc. Narrative on FS.
C-S.T.-1	FS	The Calendar, Time, And Temperature	FS is in four parts, each one pertaining to one of these four objectives. Content: "....Roman Numerals...clocks and time....calendar...thermometer and temperature....."	"Using Modern Mathematics--Group 3" Series A537-21 Society for Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
C-S.T.-1	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger numerals; Ancient Roman numerals; Modern Roman numerals; The Abacus; Hindu numerals; Place-value numerals; The numeral 10; From 99 to 100; The importance of "0"; Digits; Expanded notation-Part 1; Expanded notation-Part 2...."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.
C-S.T.-1	FS	Numbers, Numerals And Digits	Content: "....A numeral is a name for a number. .....There are different names for the same number....These names can be symbolic mathematical names such as Hindu-Arabic and Roman...."	"Kenner on Modern Mathematics - Sets and counting numbers" Series - No. 4 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
C-S.T.-1	FS	History of Our Number System	Historical, not practical. Use as introduction.	Young America Films, Inc. Narrative on FS.

Objectives	Aid	Title	Content	Source
D-NUM-4	FS	Introduction To Decimals	This FS is purely introductory, not manipulative. Content: "....Fractions with a common denominator are easy to add. If all fractions were tenths, hundredths, or thousandths, they would be easy to use. Decimals are these easy fractions with a dot for the denominator. Money values are written as decimals."	"Decimals And Percentage" Series #210 Curriculum Films Narrative on FS.
D-NUM-5	FS	Decimal Fractions	Content: "Introduces decimal fractions as an extension of common fractions."	"Elementary General Math" Series #3017 Modern Learning Aids (MLA) 16MM - Narrative on Soundtrack
D-NUM-5	FS	Decimals And Common Fractions	Content: "....A part of the whole is written as a fraction or a decimal and as tenths or hundredths....to read the names and values of decimals....the decimal symbols for some familiar fractions."	"Decimals And Percentage" Series #211 Curriculum Films Narrative on FS
D-NUM-5	FS	Fractions, Decimals And Percentage		"Light on Mathematics - Refresher course" Kit 1 - Film 4 The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-NUM-5	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents; "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publising Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency -- duplicating book.
D-PV-1	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger Numerals; Ancient Roman Numerals; Modern Roman Numerals; The Abacus; Hindu Numerals; Place-Value Numerals; The Numeral 10; From 99 to 100; The importance of "0"; Digits; Expanded notation - part 1; Expanded notation - part 2...."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-PV-1	FS	Modern Mathematics: Numeration - Base 10	FS covers various aspects of place value; inappropriate portions may be used as review, as preview, or may be omitted. Content: "Using digits in numeration.... importance of place-value in numeration...patterns in numeration.... place-value charts; use of the Abacus...."	"Using Modern Mathematics--Group 4" Series A532-8 Society for Visual Education, Inc. (SVE) Narrative on FS.
D-PV-1	TP	Sets - Place Value	Each projectual can be used with the appropriate objective. Titles: "Equivalent Sets; equal sets; comparison of numerals; partitioning sets; grouping by tens; place value: 2-digit; place value: 3-digit; place value: 4-digit; place value: 4-digit; joining sets and adding numbers."	"Elementary School Math-Second Grade" Series #511.CA-SS Creative Visuals Series of 9 transparencies (511.CA-01 to 511.CA-09)
D-PV-4	FS	Numbers, Numerals, And Operations	Some frames may be advanced or irrelevant, and may be omitted. Content: "Distinction between number and numeral; properties of the decimal system of numeration; a way of thinking about the so-called four fundamental operations of arithmetic."	"Seeing the use of Numbers" Series (#162) Set V - Filmstrip A Eye Gate House, Inc. #162-A Narrative on FS: Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Company)

Objectives	Aid	Title	Content	Source
D-PV-5	FS	Numbers, Numerals, And Operations	Some frames may be advanced or irrelevant, and may be omitted. Content: "Distinction between number and numeral; properties of the decimal system of numeration; a way of thinking about the so-called four fundamental operations of arithmetic."	"Seeing The Use Of Numbers" Series (#162) Set V -- Filmstrip A Eye Gate House, Inc. #162-A Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic-Book 5" (D.C. Heath And Co.)
D-PV-5	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, Bound in a transparency -- duplicating book.
D-PV-5	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
D-PV-5	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming nos.; subtracting 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit nos., with and without regrouping; etc....."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-PV-5	FS	Place Value And Subtraction	FS has appropriate material for each of these three objectives; with each individual objective. The inappropriate portion may either be omitted, or used as review or preview material. Content: "....Numbers can have several names.... how place value can be used to name a No...subtraction examples where the units digit of the subtrahend exceeds that of the minuend and where one ten is renamed as ten ones....one hundred can be renamed as ten tens in the case where the tens digit of the subtrahend exceeds that of the minuend...."	Set F-3: "Operations And Whole Numbers 1" #1211 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-PV-6	TP	Addition-Subtraction-Regrouping Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; a-ding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2, 3, and 4-digit nos., with and without regrouping; etc....."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-PV-6	TP	Place Value	Each projectual can be used with the appropriate objective. Titles: "The meaning of place value; sums of tens; finding a sum greater than ten; solving equations of sums greater than 10; solving subtraction equations less than 18; subtraction combinations less than 18."	"Elementary School Math-First Grade" Series #511.BH-SS Creative Visuals Series of 6 transparencies (511.BH-53 to 511.BH-58)
D-ADD-1	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)

Objectives	Aid	Title	Content	Source
D-ADD-2	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit Nos., with and without regrouping; etc...."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-ADD-2	FS	Addition And Subtraction: Two - And Three - Place Numbers	FS first reviews commutative principle, open sentences, and addition & subtraction of two-digit numbers. Content: "...The commutative principle.... addition number pairs, addition facts.....subtraction facts....two-place addition and subtraction.... three-place addition and subtraction.."	"Using Modern Mathematics - Group 3" Series A537-22 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-ADD-2	FS	New Phases Of Addition And Subtraction	FS teaches function of zero in addition and subtraction problems with three-digit numbers; it first reviews commutative principle, open sentences, and zero in problems with 1- and 2-digit Nos. Content: "...Commutative principle...The open sentence and the complete sentence... the meaning and use of zero....meaning and use of zero in a) Two-place addition and subtraction b) Three-place addition and subtraction....."	"Using Modern Mathematics - Group 3" Series A537-23 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
D-ADD-5	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency -- duplicating book.
D-ADD-5	FS	Regrouping Ones And Tens	When used for D-ADD-5, the frames on subtraction can either be omitted or used to preview subtraction; with D-SUB-3, frames on addition can either be omitted or used to review addition. The concept is introduced in the FS by using money (10 pennies= 1 dime, etc.) Concept: "Step-by-step development of regrouping components of sums in addition (carrying) and of minuends in subtraction (borrowing) with two-place numbers."	"Seeing the Use Of Numbers" Series (#124) Set III - Filmstrip E Eye Gate House, Inc. #124-E Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions, correlated with "Learning To Use Arithmetic - Book 3" (D.C. Heath And Co.)
D-ADD-5	TP	Addition-Subtraction-Regrouping of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit Nos., with and without regrouping; Etc..."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)

Objectives	Aid	Title	Content	Source
D-ADD-5	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (Addition and Subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a teachers guide for each transparency.
D-ADD-6	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (Addition and Subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
D-ADD-6	FS	Regrouping Tens And Hundreds	With D-ADD-6, frames on subtraction can either be omitted or used to preview subtraction; with D-SUB-4, frames on addition can either be omitted or used to review addition. The concept is introduced in the FS by using money (10 dimes = 1 dollar, etc.). Content: "Regrouping the components of three-place numbers in sums of addition (carrying) and minuends of subtraction (borrowing)."	"Seeing The Use Of Numbers" Series (#124) Set III - Filmstrip F Eye Gate House, Inc. #124-F Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic -- Book 3" (D.C. Heath And Co.)
D-ADD-7	TP	Addition-Subtraction-Regrouping Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit Nos., with and without regrouping; etc...."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-ADD-7	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
D-ADD-8	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a Teachers Guide for each transparency.
D-SUB-2	FS	Addition And Subtraction: Two-And Three-Place Numbers	FS first reviews commutative principle, open sentences, and addition and subtraction of two-digit numbers. Content: "....The commutative principle.... addition number pairs, addition facts. subtraction facts....two-place addition and subtraction....three-place addition and subtraction....."	"Using Modern Mathematics - Group 3" Series A537-22 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-SUB-2	FS	New Phases Of Addition And Subtraction	FS teaches function of zero in addition and subtraction problems with three-digit numbers; it first reviews commutative principle, open sentences, and zero in problems with 1- and 2-digit Nos. Content: "....commutative principle...the open sentence and the complete sentence.... the meaning and use of zero..... meaning and use of zero in a) two-place addition and subtraction b) three-place addition and subtraction...."	"Using Modern Mathematics - Group 3" Series A537-23 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
D-SUB-2	TP	Addition-Subtraction-Regrouping Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit Nos., with and without regrouping; etc..."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-SUB-3	TP	Addition-Subtraction-Regrouping Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit Nos., with and without regrouping; etc...."	"Elementary School Math-Second-Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-SUB-3	FS	Place Value And Subtraction	FS has appropriate material for each of these three objectives; with each individual objective. The inappropriate portion may either be omitted, or used as review or preview material. Content: "....Numbers can have several names... how place value can be used to name a No....subtraction examples where the units digit of the subtrahend exceeds that of the minuend and where one ten is renamed as ten ones....one hundred can be renamed as ten tens in the case where the tens digit of the subtrahend exceeds that of the minuend....."	Set F-3: "Operations And Whole Numbers" #1211 Popular Science Publishing Co., Inc. Narrative on FS: Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-SUB-3	FS	Compound Subtraction		Primary Arithmetic Series Mc-Graw-Hill Text-Films #103055 Narrative on FS.
D-SUB-3	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency -- duplicating book.
D-SUB-3	FS	Regrouping Ones And Tens	When used for D-ADD-5, the frames on subtraction can either be omitted or used to preview subtraction; with D-SUB-3, frames on addition can either be omitted or used to review addition. The concept is introduced in the FS by using money (10 pennies = 1 dime, etc.). Concept: "Step-by-step development of regrouping components of sums in addition (carrying) and of minuends in subtraction (borrowing) with two-place numbers."	"Seeing The Use Of Numbers" Series (#124) Set III - Filmstrip E #124-E Eye Gate House, Inc. Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions correlated with "Learning To Use Arithmetic -- Book 3" (D.C. Heath And Company)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SUB-3	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT 7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a teachers guide for each transparency.
D-SUB-4	FS	Place Value And Subtraction	FS has appropriate material for each of these three objectives; with each individual objective. The inappropriate portion may either be omitted, or used as review or preview material. Content: "....Numbers can have several names... how place value can be used to name a No....subtraction examples where the units digit of the subtrahend exceeds that of the minuend and where one ten is renamed as ten ones....one hundred can be renamed as ten tens in the case where the tens digit of the subtrahend exceeds that of the minuend...."	Set F-3: "Operations And Whole Numbers #1211 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-SUB-4	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents; "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency -- duplicating book.
D-SUB-4	TP	Modern Math: Hard Spots, Grade 3	Each projectual can be used with the appropriate objective(s). Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems, base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

Objectives	Aid	Title	Content	Source
D-SUB-4	FS	Regrouping Tens And Hundreds	With D-ADD-6, frames on subtracting can either be omitted or used to preview subtraction; with D-SUB-4, frames on addition can either be omitted or used to review addition. The concept is introduced in the FS by using money (10 dimes = 1 dollar, etc.). Content: "Regrouping the components of three-place numbers in sums of addition (carrying) and minuends of subtraction (borrowing)."	"Seeing The Use of Numbers" Series (#124) Set III - Filmstrip F Eye Gate House, Inc. #124-F Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic -- Book 3" (D.C. Heath And Co.).
D-SUB-4	TP	Addition-Subtraction-Regrouping Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Subtracting multiples of ten; renaming Nos.; subtracting 1's, 10's, and 100's; adding multiples of ten; adding 1's, 10's, 100's; completing addition sentences and subtraction sentences; sums and differences of 2-, 3-, and 4-digit nos., with and without regrouping; etc...."	"Elementary School Math-Second Grade" Series #511.CE-SS Creative Visuals Series of 20 transparencies (511.CE-34 to 511.CE-53)
D-SUB-5	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grid and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a teachers guide for each transparency.

Objectives	Aid	Title	Content	Source
D-MUL-1	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.
D-MUL-1	FS	Modern Mathematics: Multiplication -- Objects And Symbols	Content: "Symbols, the number in a set, the number of sets along with the concepts of multiplying by 2's and 3's."	"Using Modern Mathematics--Group 2" Series A531-15 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-MUL-1	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-S Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)
D-MUL-2	FS	The Threes		Primary Arithmetic Series McGraw-Hill Text-Films #103056 Narrative on FS.

Objectives	Aid	Title	Content	Source
D-MUL-2	FS	Discovery of Multiplication Facts	Content: "The basic concept of multiplication of integers.....that of repeated addition."	"Kenner on Modern Mathematics - Operations And Relations - Part 2" Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
D-MUL-2	TP	Preparing For Multiplication And Division	EAch projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No.#663 Contains 23 transparencies
D-MUL-2	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order prindiple of multiplication; finding products; multiplication by 1 and 0; andaddition table; a multiplication table."	"Elementary School Math-Second Grade" Series#511.CF-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)

Objectives	Aid	Title	Content	Source
D-MUL-2	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
D-MUL-2	FS	Let's See How To Multiply	Can use specific portion of FS for appropriate objective. Several frames near end of FS may seem either too advanced or irrelevant, and may be omitted. Content: "The meaning and use of multiplication covering facts of 2 (related facts where 2 is either the multiplicand or the multiplier) and the generalizations about facts of 1 and 0; the relation of multiplication to addition."	"Seeing The Use Of Numbers" Series (#124) Set III - Filmstrip G Eye Gate House, Inc. #124-G Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic -- Book 3" (D.C. Heath And Company)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-MUL-2	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objectives. Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

Objectives	Aid	Title	Content	Source
D-MUL-3	TP	From The Union Of Equivalent Sets To Multiplication of Whole Numbers	Use each TP with appropriate objective Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16) 54 overlays, and a Teachers Guide for each transparency.
D-MUL-3	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; and addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-MUL-3	FS	Zero In Multiplication	Beginning Of FS is actually "zero in place value" "Objectives: To teach the child place value in numbers and the importance of 0 as a place holder. To teach the importance of placing partial products."	Adventures With Numbers Series #113153 McGraw-Hill Book Co. Narrative on FS, But Teaching Guide gives Frame-By-Frame explanations, suggestions.
D-MUL-3	FS	Let's See How To Multiply	Can use specific portion of FS for appropriate objective. Several frames near end of FS may seem either too advanced or irrelevant, and may be omitted. Content: "The meaning and use of multiplication covering facts of 2 (related facts where 2 is either the multiplicand or the multiplier) and the generalizations about facts of 1 and 0; the relation of multiplication to addition."	"Seeing The Use of Numbers" Series (#124) Set III - Filmstrip G Eye Gate House, Inc. #124-G Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning To Use Arithmetic--Book 3" (D.C. Heath And Co.).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-MUL-3	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.
D-MUL-3	FS	Zero And One	FS also reviews zero and one in addition and subtraction. When used with D-MUL-3, some of the FS may be too advanced and may be omitted; when used with D-DIV-5, much of the FS will be review in nature. Purposes: "To investigate zero as the identity number of addition and one as the identity number of multiplication."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 #405232 McGraw-Hill Text Films Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
D-MUL-3	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2- and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

Objectives	Aid	Title	Content	Source
D-MUL-3	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents; "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equationsl equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-MUL-4	FS	Multiplication: Group II	All frames show multiplication problems with 2 factors (ranging from 0 through 8) and products no higher than 35 in this form: $\begin{array}{r} 2 \\ \times\ 7 \\ \hline 14 \end{array}$	Basic numbers -- speed-1-0-strip series A536-19 Society for Visual Education, Inc. (SVE) Narrative on FS.
D-MUL-4	FS	Multiplication: Group I	All frames show multiplication problems with 2 factors (Ranging from 0 through 9) and products no higher than 25, in this form: $\begin{array}{r} 2 \\ \times\ 8 \\ \hline 16 \end{array}$	Basic Numbers -- speed-1-0-strip series A536-18 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
D-MUL-4	FS	Modern Mathematics: Multiplication Facts - Sets	When used with D-MUL-4, the portion of the FS dealing with the commutative principle may either be omitted or serve as preview material; with D-MUL-6, much of the FS will be basically review. Content: "Multiplication: Combinations; facts; families....multiplication in terms of sets....multiplication as repeated addition....multiplication principle... multiplication properties: of zero; of one, the identity number.... the commutative principle...."	"Using Modern Mathematics - Group 4" Series A532-2 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-MUL-4	FS	Working With Equal Groups	FS also serves to introduce several more advanced concepts for both multiplication and division. When used for mult., the div. portion can be introductory or omitted; with div., the mult. portion can be review or omitted. Content: "Multiplication and division facts of 3 with problems; modest extension of skills to two-place multiplicands and two- and three-place divisors."	"Seeing The Use of Numbers" Series #124 Set III - Filmstrip I Eye Gate House, Inc. #124-I Narrative on FS; Teachers Manual gives Frame-By-Frame description, suggestions. Correlated with "Learning to Use ARithmetic - Book 3" (D.C. Heath And Co.)
D-MUL-4	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.

Objectives	Aid	Title	Content	Source
D-MUL-4	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
D-MUL-4	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS CReative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)

Objectives	Aid	Title	Content	Source
D-MUL-5	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; and addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.Cf-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF--64)
D-MUL-5	TP	Preparing For Multiplication and Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663: Contains 23 transparencies.
D-MUL-6	FS	Changing The Order: Multiplication And Division	Purposes: To provide an opportunity for the children to investigate the results of changing the order of numbers in multiplication and division. To help the children understand the commutative property of multiplication."	Modern Arithmetic Series - Grades 3 And 4 #405429 McGraw-Hill Text Films Narrative on FS; Filmstrip Guide gives Frame-By-Frame explanations, suggestions.
D-MUL-6	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-MUL-6	TP	**Multiplication Of Whole Numbers**	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)
D-MUL-6	FS	**Commutative Property of Multiplication**	FS can be used to cover both of these objectives. Content: "...Think of multiplication in terms of groups of objects arranged in arrays...No. of objects in array is same if no. of rows and columns are interchanged....commutative property introduced...."factor," "product" - terminology...."	Set F-3: "Operations and Whole Numbers" #1217 Popular Science Publishing Co., Inc. Narrative On FS; Teaching Guide give Frame-By-Frame description, suggestions.
D-MUL-6	FS	**Multiplication Patterns**	Can be used to cover both objectives simultaneously; It first reviews repeated addition. Content: "....Multiplication is introduced naturally by means of repeated addition....the terms "product" and "factor" are introduced....the commutative property is illustrated."	"Kenner on Modern Mathematics - Extending Arithmetic" Series No.3 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-MUL-6	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2- and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-MUL-6	FS	Modern Mathematics: Multiplication Facts - Sets	When used with D-MUL-4, the portion of the FS dealing with the commutative principle may either be omitted or serve as preview material; with D-MUL-6, much of the FS will be basically review. Content: "....Multiplication: Combinations; facts; families....multiplication in terms of sets....multiplication as repeated addition....multiplication principle....multiplication properties of zero; of one, the identity number....the commutative principle...."	"Using Modern Mathematics - Group 4" Series A532-2 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
D-MUL-6	TP	From The Union of Equivalent Sets To Multiplication of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
D-MUL-7	TP	From the Union of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutatibe property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
D-MUL-7	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents; "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating look.
D-MUL-7	FS	Multiplication Patterns	Can be used to cover both objectives simultaneously; it first reviews repeated addition. Content: "....Multiplication is introduced naturally by means of repeated addition....the terms "product" and"factor" are introduced...the commutative property is illustrated."	"Kenner on Modern Mathematics - Extending Arithmetic" Series-No. 3 Filmstrip House Inc. Narrative on FS; Teacher's Guide contains description, suggestions
D-MUL-7	FS	Commutative Property of Multiplication	FS can be used to cover both of these objectives. Content: "...Think of multiplication in terms of groups of objects arranged in arrays....No. of objects in array is same if no. of rows and columns are interchanged....commutative property introduced...."factor," "product" - terminology...."	Set F-3: "Operations and Whole Numbers" #1217 Popular Science Publishing Co., Inc. Narrative on FS; TEaching Guide gives Frame-By-Frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-MUL-7	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 transparencies (511.Cf-54 to 511.CF-64)
D-MUL-8	FS	Solving Problems: Multiplication And Division	Inappropriate problems may be omitted with each of these objectives. Products: "To provide an opportunity for the children to relate multiplication and division equations to situations involving sets and equivalent subsets."	Modern Arithmetic Series - Grades 3 & 4 - set 2 #405235 McGraw-Hill Text Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-MUL-8	FS	Solving Problems: Grades 3 And 4	Purposes: "To help the children use equations to solve story problems. To emphasize the application of multiplication in everyday situations."	Modern Arithmetic Series - Grades 3 and 4 #405432 McGraw-Hill Text Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
D-MUL-8	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-DIV-1	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

Objectives	Aid	Title	Content	Source
D-DIV-1	TP	From The Union of Equivalent Sets to Multiplication Of Whole Numbers	Use each TP with appropriate objective Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrated basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in hlaf the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
D-DIV-1	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No.#663 Contains 23 transparencies.
D-DIV-1	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School-Math Second Grade" Series #511.Ch-SS Creative Visuals Series of 4 transparencies (511.CH-7- to 511.CH-73).

Objectives	Aid	Title	Content	Source
D-DIV-1	TP	From Operations On Numbers To Computation (Multiplication And Division)"	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.
D-DIV-1	FS	Modern Mathematics: Division -- Objects And Symbols	FS can be used for either objective, or for both. Also, FS does not use operation symbols (÷), X, etc.) -- it uses words. Content: "Teaches grouping into sets; dividing by 2's, 3's."	"Using Modern Mathematics -- Group 2" Series A531-16 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-DIV-1	FS	The Twos In Division		Primary Arithmetic Series McGraw-Hill Text-Films #103057 Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-DIV-2	TP	Modern Math: Hard Spots, Grade 3	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Content: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-DIV-2	TP	From The Union of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrated basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

Objectives	Aid	Title	Content	Source
D-DIV-2	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.
D-DIV-2	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second Grade" Series #511.CH-SS Creative Visuals Series of 4 transparencies (511.CH-7- to 511.CH-73)
D-DIV-2	FS	Inverse Operations: Multiplication And Division	Purposes: "To provide children with an opportunity to investigate the relation between multiplication and division."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 #405234 McGraw-Hill Text Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-DIV-2	FS	Understanding Division		"Mathematics" Series #A-72 Your Lesson Plan Filmstrips, Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-DIV-2	FS	Modern Mathematics: Division -- Objects And Symbols	FS can be used for either objective, or for both. Also, FS does not use operation symbols (÷, X, Etc.) -- it uses words. Content: "Teaches grouping into sets; dividing by 2's, 3's."	"Using Modern Mathematics -- Group 2" Series A531-16 Society for Visual Education, Inc. (SVE) Narrative on FS.
D-DIV-2	TP	Modern Math: Hard Spots, Grade 4	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound ina transparency - duplicating book.
D-DIV-3	FS	Division Patterns	Can be used to cover both objectives simultaneously. Content: "...The idea of division by sharing equally and making equal sets..... the terms "divisor" and "quotient" are introduced as well as the division symbol÷.....illustrates the relationship between division and multiplication."	"Kenner On Modern Mathematics -- Extending Arithmetic" Series No. 4 Filmstrip House Inc. Narrative on FS; Teacher's Guide contains description, suggestions

Objectives	Aid	Title	Content	Source
D-DIV-3	TP	From The Union Of Equivalent Sets To Multiplication of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
D-DIV-4	TP	Modern Math: Hard Spots, Grade 4	Order corresponds to that of projectuals. Each projectual can be used with the appropriate objective(s). Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-DIV-4	FS	Division: Group 1	All frames show division problems with dividends 0 through 36 (all but one frame), divisors 1 through 9, and quotients 0 through 9, in this form: $5\overline{)15}$ 3	Basic Numbers -- Speed-1-0 strip series A536-22 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-DIV-4	FS	Division: Group II	All frames show division problems with dividends 0 through 56, divisors 1 through 9, and quotients 0 through 9, in this form: $5\overline{)35}$ 7	Basic Numbers -- Speed-1-0-strip series A536-23 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-DIV-4	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 transparencies.
D-DIV-4	FS	Let's See How To Divide	Can use specific portion of FS for appropriate objective. Content: "The meaning and use of division covering division facts where 2 is either the divisor or the quotient and the generalization about division facts involving 1 and 0; the relation of division to subtraction and to multiplication."	"Seeing The Use Of Numbers" Series (#124) Set III - Filmstrip H Eye Gate House, Inc. #124-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use ARithmetic - Book 3" (D.C. Heath And Co.).

Objectives	Aid	Title	Content	Source
D-DIV-4	FS	Working With Equal Groups	FS also serves to introduce several more advanced concepts for both multiplication and division. When used for mult., the div. portion can be introductory or omitted; with div., the mult. portion can be review or omitted. Content: "Multiplication and division facts of 3 with problems; modest extension of skills to two-place multiplicands and two-and three-place divisors."	"Seeing The Use of Numbers" Series (#124) Set II - Filmstrip I Eye Gate House, Inc. #124-I Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 3" (D.C. Heath And Co.)
D-DIV-5	FS	Let's See How To Divide	Can use specific portion of FS for appropriate objective. Content: "The meaning and use of division covering division facts where 2 is either the divisor or the quotient and the generalization about division facts involving 1 and 0; the relation of division to subtraction and to multiplication."	"Seeing The Use Of Numbers" Series (#124) Set III - Filmstrip H Eye Gate House, Inc. #124-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 3" (D.C. Heath And Co.)
D-DIV-5	TP	Preparing For Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Combinations through tens."	Mathematics No. 17 3M Visual Products Cat. No. 663 Contains 23 Transparencies.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-DIV-5	FS	Zero And One	FS also reviews zero and one in addition and subtraction. When used with D-MUL-3, some of the FS may be too advanced and may be omitted; when used with D-DIV-5, much of the FS will be review in nature. Purposes: "To investigate zero as the identity number of addition and one as the identity number of multiplication."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 #405232 Mc-Graw-Hill Text-Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-DIV-6	FS	Modern Mathematics: Division Facts - Sets	FS is appropriate for this objective, but the number limits are beyond 50 ÷ 5. Content: "....Division: Combinations; facts; families....division in terms of sets.. division as repeated subtraction..... division principle....division symbols: ÷,) ...quotients.... dividing by 2,3,4,5,6,7,8,9....."	"Using Modern Mathematics: Group 4" Series A532-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-DIV-7	FS	Solving Problems: Multiplication And Division	Inappropriate problems may be omitted with each of these objectives. Products: "To provide an opportunity for the children to relate multiplication and division equations to situations involving sets and equivalent subsets."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 McGraw-Hill Text-Films #405235 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-DIV-7	FS	Understanding Division		"Mathematics" Series #A-72 Your Lesson Plan Filmstrips Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-COP-1	FS	Work And Play With Problems	Can use specific portions of FS for appropriate objective.	"Bridging The Decades" Series (#40) Eye Gate House, Inc. #40-H Narrative on FS; Teachers Manual gives suggestions.
D-COP-2	FS	Addition And Subtraction		"Light On Mathematics - Refresher Course" Kit 1 - film 2 The Jam Handy Organization Narrative on FS.
D-COP-2	FS	Addition And Subtraction - Part 2	Content: "Basic addition and subtraction facts through sums of 10; higher order addition and subtraction skills."	Arithmetic Series Set No. 1 McGraw-Hill Book Co. #400023 Narrative on FS; Teachers Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-COP-2	FS	Advancing With Addition, Subtraction, Multiplication, And Division	First half of FS applies to D-COP-2 (add. & subtr. problems with carrying); second half reviews much of mult. & div.,thus applies to D-COP-3. Content: "Addition: Place-value chart; principle of exchange and regroup; the carry no; the extended sum... subtraction; place-value chart; regrouping (borrowing); regrouping with 0 in ones place....multiplication; the no. line; commutative principle; relating add. to mult....division: No. line; relating subtr. and div.; Relating mult. and div....problem-solving in addition, subtraction, multiplication, division."	"Using Modern Mathematics - Group 3" Series A537-25 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-COP-3	FS	Equal Groups, 4 And 5	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 4 and 5. Content: "Multiplication and division facts of 4 and 5; the relation of multiplication to addition, multiplication to division, division to subtraction; uneven divisions where 4 or 5 is either the divisor or the quotient."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip D Eye Gate House, Inc. #133-D Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And co.).

Objectives	Aid	Title	Content	Source
D-COP-3	FS	Equal Groups, 6 And 7	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 6 and 7. "Multiplication and division facts of 6 and 7; uneven divisions by 6, by 7; relations among the four operations."	"Seeing The Use Of Numbers" Series (#133) Set IV - filmstrip E Eye Gate House, Inc. #133-E Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 4" (D.C. Heath And Co."
D-COP-3	FS	Equal Groups, 8 And 9	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 8 and 9. Content: "Multiplication and division facts of 8 and 9; uneven divisions by 8, by 9; relations among the four operations."	"Seeing the use of Numbers" Series (#133) IV - Filmstrip F Eye Gate House, Inc. #133-F Narrative on FS; Teachers Manual gives frame-by-frame description, suggestion. Correlated with "Learning To Use Arithmetic - Book 4" (D.C. Heath And Co.).
D-COP-3	FS	Multiplication And Division	Reviews multiplication and division from a problem-solving approach. Content: "Nature of multiplication and division processes; basic facts and skills associated with each."	Arithmetic Series Set No. 1 McGraw-Hill Book Co. #400024 Narrative on FS; Teachers Guide gives frame-by-frame explanations; suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-COP-3	FS	Advancing With Addition, Subtraction, Multiplication, And Division	First half of FS applies to D-COP-2 (add. & subtr. problems with carrying); second half reviews much of mult. & div., thus applies to D-COP-3. Content: "Addition: place-value chart; principle of exchange and regroup; the carry no; the extended sum.... subtraction: Place-value chart; regrouping (borrowing); regrouping with 0 in ones place...multiplication: The no. line; commutative principle; relating add. to mult....division: no. line; relating subtr. and div.; relating mult. and div....problem-solving in addition, subtraction, multiplication, division."	"Using Modern Mathematics - Group 3" Series A537-25 Society for Visual Education, Inc. (SVE) Narrative on FS.
D-COP-4	FS	Work And Play With Problems	Can use specific portions of FS for appropriate objective.	"Bridging The Decades" Series (#40) Eye Gate House, Inc. #40-H Narrative on FS; Teachers Manual gives suggestions.
D-COP-4	FS	Solving Problems	Content: "Number skills applied to 1 and 2 step problems."	Arithmetic Series Set No. 1 McGraw-Hill Book Co. #400025 Narrative on FS; Teachers Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-COP-4	FS	Solving Problems	General approach to solving word problems; use at appropriate level in terms of difficulty of specific arithmetic operations within the problems. "Content: The presentation of problem solving in this filmstrip emphasizes the understanding of the nature of a problem, seeing the action in the problem, translating the action into mathematical sentences, and finding several ways to solve the problem."	Modern Arithmetic Series - Grades 5 & 6 McGraw-Hill, Inc. #043119 Narrative on FS; But Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-COP-4	FS	Solving Problems	Emphasis is on problem-solving approaches and techniques. Content: "Principles of problem solving; problems without questions; estimating answers; two-step problems."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip G Eye Gate House, Inc. #133-G Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning to use Arithmetic - book 4" (D.C. Heath And Company).
D-COP-4	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-COP-4	FS	Using What You Have Learned	Some of the problems may be too advanced, and may be omitted. Content: "Meanings and applications of the four fundamental processes with most emphasis upon multiplication and division; finding one half of a number and one third of a number; applications to measures of time."	"Seeing The Use of Numbers" Series (#124) Set III - Filmstrip J Eye Gate House, Inc. #124-J Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning to use Arithmetic - book 3: (D.C. Heath And Co.)
D-COP-4	FS	Solving Problems: Which Operation?	Content: "....The idea of joining sets.. the relationship of this idea to addition. the separation of a set into two sets....subtraction can be thought of in terms of the separation of a set, and addition in terms of the joining of sets....problems which involve multiplication and division... the important relationship between these operations...practice is given in solving problems in which all four operations are used...."	Set F-15: "Problem Solving" #1220 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-COP-4	FS	Word Problems And Flow Diagrams	Emphasis is on the use of flow diagrams to solve word problems. Content: "In this filmstrip, students are helped to see what is known and what is to be found in a problem, to devise a plan, to outline the steps, and to draw a flow diagram of those steps."	"Kenner on Modern Mathematics - Discovering Algebra" Series - No. 2 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
D-COP-5	FS	Equalities And Inequalities	Covers $>, <, =, \neq, \equiv$.	Modern Arithmetic Series - Grades 5 & 6 McGraw-Hill, Inc. #043117 Narrative on FS; But Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-COP-5	FS	Equations And Inequalities	Purposes: "To stress the idea that when two numbers are compared, the first is greater than the second, the first is less than the second, or the first equals the second. To give practice in solving open sentences."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 McGraw-Hill Text Films #405231 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

Objectives	Aid	Title	Content	Source
D-COP-5	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-FRAC-1	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS series' of same name.
D-FRAC-1	FS	Fractional Parts Of A Whole And Groups - 1/5, 1/6 1/8	Uses division	"Introduction to Fractions" Series - film 3 The Jam Handy Organization Narrative on Filmstrip
D-FRAC-1	FS	Non-Unit Fractions Of A Whole And Groups	Uses multiplication	"Introduction To Fractions" Series - Film 4 The Jam Handy Organization Narrative on Filmstrip

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-FRAC-1	FS	The Uses Of Fractions	FS can be used to cover both these objectives; it uses the terminology "numerator"and "denominator". Content: "The ways we write the symbols that stand for fractions. The meanings a fractional numeral may have."	"Understanding Fractions" Series A530-2 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-FRAC-1	FS	We Have Wholes And Parts II	Content: "...Review equal parts of whole things. learn about fifths, sixths, sevenths, eighths, and ninths."	Your Lesson Plan Filmstrips #A-147 Y.L.P. Materials Corporation Narrative on FS.
D-FRAC-2	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. contains 43 transparencies (with 128 overlays); related to film and FS Series of same name.
D-FRAC-2	FS	The Uses Of Fractions	FS can be used to cover both these objectives; it uses the terminology "numerator" and "denominator" Content: "The ways we write the symbols that stand for fractions. The meanings a fractional numeral may have."	"Understanding Fractions" Series #A530-2 Society for Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-FRAC-2	FS	Fractions Of A Group	Content: "....Fractions are equal parts of whole things. Fractions are also equal parts of groups."	"Fractions" Series #203 Curriculum Films Narrative on FS
D-FRAC-2	F	Introduction To Fractions	Reviews all fractions thus far, and introduces improper fractions, mixed nos., etc. Content: "Designed to summarize and clarify those basic concepts of common fractions which have previously been presented to the student."	"Elementary General Math" Series #3011 Modern Learning Aids (MLA) 16MM - Narrative on Soundtrack
D-FRAC-2	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second-Grade" Series #511.CH-SS Series of 4 transparencies (511.CH-70 to 511.CH-73)
D-FRAC-2	TP	Modern Math: Hard Spots, Grade 3	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2- and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency-duplicating book.

Objectives	Aid	Title	Content	Source
D-FRAC-2	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (With 128 overlays); Related to film and FS Series' of same name.
D-FRAC-3	FS	Adding Fractions	Use only part 1 of FS. Content: "...Objects can be added only if they are the same kinds of objects. Therefore, two fractions with different denominators cannot be added. First step is to change one denominator to agree with a second one....."	"Fractions" Series #205 Curriculum Films, Inc. Narrative on FS.
D-FRAC-3	FS	Adding With Fractions	Problems using "N" as an unknown may be omitted. Content: "...The addition of unit fractional numbers....using parts of a region and also number lines....add 2 non-unit fractional nos. whose sum is not greater than one....rule for adding fractional nos. which have common denominators...practice addition of fractional nos. in equation and column form....also add 3 fractional nos...."	Set F-4: "Operations and Fractions 1" #1204 Popular Science Publishing Co., Inc. Narrative on FS; TEaching Guide gives frame-by-frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-FRAC-3	FS	Comparing Fractions	Uses addition extensively, with emphasis on comparison.	"Introduction to Fractions" Series - Film 5 The Jam Handy Organization Narrative on Filmstrip.
D-FRAC-4	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (With 128 overlays). Related to film and FS Series' of same name.
D-FRAC-5	TP	Modern Math; Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction;division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
D-FRAC-5	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "Introduction to fractions; concept of fractions; fractional number line."	Instructo Corporation No. 830-A Series of 3 transparencies, with individual sheets of descriptions, suggestions. (830-1 to 830-3)

Objectives	Aid	Title	Content	Source
D-FRAC-5	FS	How Large Is A fraction?	Mostly review, with this objective covered toward end of FS. Content: "The fraction below the line is the denominator. The denominator shows how many equal parts the objective has been divided into....the concept of the relative size of fractions... the equivalence of fractions...."	"Fraction" Series #204 Curriculum Films, Inc. Narrative on FS.
D-FRAC-5	F	Meaning Of Fractions	Also reviews basic fractions concepts; portion of film that goes beyond scope of this objective may be disregarded. Content: "...fractions as part of a whole and a part of a group....methods of writing fraction numerals...their relation to whole nos.....a fraction of a whole; a fraction of a group, comparison of fractions and equivalents, proper and improper fractions, and mixed nos....fractions in everyday use...."	"Building Concepts In Mathematics" Series 5217-#1 John Colburn Associates, Inc. Related to FS of same name 16MM - Narrative on Soundtrack. Teachers Guide gives description, suggestions.

Objectives	Aid	Title	Content	Source
D-FRAC-5	FS	Meaning Of Fractions	FS also reviews basic fractions concepts; the end of the FS touches upon several concepts beyond the scope of this objective; and thus may be omitted.... Content: "....Fractions as part of a whole... fractions as part of a group... equivalent fractions...proper fractions, improper fractions, mixed nos....."	"Building Concepts in Mathematics" Series 5217-#1 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.
D-FRAC-5	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (With 128 overlays); Related to film and FS Series' of same name.
D-MONEY-1	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
D-MONEY-1	FS	Experiences With The Thermometer And With Money	First part of FS covers E-SOM-4, and the second part D-MONEY-1; the two parts are unrelated. The second part (MONEY) reviews more elementary money concepts as it develops this particular objective.	"Arithmetical Experiences For the Third Year" #51-D Eye Gate House, Inc. Narrative on FS; Teachers Manual gives suggested activities.

Objectives	Aid	Title	Content	Source
D-MONEY-1	F	Making Change For A Dollar	Content: "...The comparative values of nickels, dimes, quarters, half-dollars, and dollars....some of the ways these values are expressed...how we can "make change"....understanding these comparative values...."	Coronet Instructional Films #886 Teacher's Guide gives description, suggestions. 16MM - Narrative on Soundtrack.
D-MONEY-3	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second Grade" Series #511.CG-SS CReative Visuals Series of 5 transparencies (511.CG-65 to 511.CG-69)
D-MONEY-3	FS	Using Parts of A Dollar	First introduces meaning of money in general. Content: "The value of money, Learning the parts of a dollar, using parts of a dollar."	"1,2,3, Arithmetic And Social Studies Experience" Series #A-43 Your Lesson Plan Filmstrips Narrative on FS.
D-MONEY-5	FS	Can You Make Change?	Content: "...The right way to count out change: a. Say the price of the thing bought. b. Give out the change, counting from the purchase price in terms of the coins given out...."	Set H-17: "Dividing Things" #935 Popular Science Publishing Co., Inc. Narratibe on FS; Teaching Guide gives frame-by-frame description, suggestions.

Objectives	Aid	Title	Content	Source
D-MONEY-5	FS	Making Change	"Objective: To teach the child how to make change when buying or selling."	Adventures with Numbers Series #113151 McGraw-Hill Book Co. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.
D-MONEY-5	FS	The Story Of Money	Emphasis is more historical than practical, but a good introduction to money as a medium of exchange. "Content: ....This filmstrip deals with the evolution of money from its early days to the present."	"New Horizons In Arithmetic" Series #116218 McGraw-Hill Text Films Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-MONEY-5	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies.
D-MONEY-6	F	Arithmetic In The Food Store	Content: ".....Use arithmetic to add prices of items, etc....add and subtract cents, and change cents to dollars and cents. how useful computation is in everyday life....."	Coronet Instructional Films #1546 Teachers Guide for description, suggestions. 16MM - Narrative on soundtrack.

Objectives	Aid	Title	Content	Source
D-TIME-1	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
D-TIME-1	FS	Early Time Telling	Purely historical, but an interesting and perhaps motivating intRoduction.	"Man And Measures" Series Filmstrip House Narrative on FS.
D-TIME-1	FS	Learning To Tell Time	Covered Concepts: 1. Recognizing times 2. Associating number symbols and oral no. words 3. Comparing as to order and position 4. Increasing and decreasing numbers 5. Recognizing clock face, minute hand, and hour hand.	"Using And Understanding Numbers" Series #A537-4 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-TIME-1	FS	History Of Telling Time	Historical, Not practical.	"History Of Measures" Series #3 Young America Films, Inc. Narrative on FS.

Objectives	Aid	Title	Content	Source
D-TIME-2	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies.
D-TIME-2	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second Grade" Series #511.CG-SS Series of 5 transparencies (511.CG-65 to 511.CG-69)
D-TIME-2	FS	Experiences With Time	Last 4 frames may be omitted, as they deal with Roman Numerals.	"Arithmetical Experiences For The Third Year" #51-E Eye Gate House, Inc. Narrative on FS; Teachers Manual gives suggested activities.
D-TIME-2	FS	How To Tell Time - Part 1: The Hour And The Half-Hour	As title indicates, FS deals only with times on the hour or half-hour	"How To Tell Time" Series Part 1 #308077 McGraw-Hill Text Films Narrative on FS.

Objectives	Aid	Title	Content	Source
D-TIME-2	FS	How To Tell Time -- Part 2: The Minutes		"How To Tell Time" Series Part 2 #308078 McGraw-Hill Text-Films Narrative on FS.
D-TIME-2	FS	Modern Mathematics: Telling Time	Concerned mainly with reading times from clock faces; all times are either on the hour, the half-hour, or the quarter-hour. Content: "Recognizing numerals on the face of a clock.... Recognizing clock face, minute hand, hour hand.... Understanding -- a) The hour, the half-hour, and the quarter-hour b) The appropriate time and the arithmetic vocabulary...."	"Using Modern Mathematics -- Group 1-1" Series A531-4 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-TIME-2	FS	Time And Money	1st half of FS is D-TIME-2, 2nd half is B-MONEY-2. The two parts are unrelated. Content: "....Telling time and recognizing money....."	"Work And Play With Numbers" Series (#27) Eye Gate House, Inc. #27-D Narrative on FS; Teachers Manual gives nature and purpose of the FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-TIME-2	FS	Tick-Tock, The Learning Clock	Subject matter fits objective, but approach may be rather simple for this level. Very beginning and very end may be omitted if this is the case. Content: "...Telling time on the hour, half-past the hour, minutes before and after the hour."	"Development of Number Concepts" Series #638 Curriculum films Narrative on FS.
D-TIME-3	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies nickels, and dimes; pennies, nickels, dimes quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second Grade" Series #511.CG-SS Creative Visuals Series of 5 transparencies (511.CG-65 to 5-1.CG-69)
D-TIME-3	FS	Time And Money	First half of FS covers D-TIME-3, and second half covers B-MONEY-2 -- the two parts are unrelated. The first half (TIME) is very elementary for this level, and only covers times exactly on the hour (?? o'clock, etc.). Content: "Telling time by the hour and using coins to ten cents."	"Seeing the Use of Numbers" Series (#103) Set 1 - Filmstrip H Eye Gate House, Inc. #103-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions correlated with "Learning To Use Arithmetic - Book 1" (D.C. Heath And Co.)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-TIME-3	FS	The Calendar, Time, And Temperature	FS is in four parts, each one pertaining to one of these four objectives. Content: "....Roman Numerals... clocks and time.... calendar....thermometer and temperature...."	"Using Modern Mathematics -- Group 3" Series A537-21 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-TIME-3	FS	Little Hand, Big Hand		"Arithmetic. Social Studies" Series #A-56 Your Lesson Plan Filmstrips, Inc. Narrative on FS.
D-TIME-4	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second Grade" Series #511.CG-SS Series of 5 transparencies (511.CG-65 to 511.CG-69)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-TIME-6	FS	How We Tell Time	FS includes many clock faces at various times, which are described verbally in the captions. Content: "....Many things done each day at a specific time...the clock measures time accurately.... the clock face shows 12 hours.. the short hand of the clock shows the hour...the long hand of the clock shows the number of minutes or part of the hour.	Set H-16: "Time" #925 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
D-TIME-6	FS	What Is Time?	FS gives practice in reading times on clock faces. Content: "....Time doesn't wait...time is measured by something which moves at a steady pace.. some words denoting time get their names from activities which take place---vacation time; school time; bedtime; recess time...an awareness of time helps further the performance of our responsibilities in doing things...."	Set H-16: "Time" #976 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-TIME-7	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second-Grade" Series #511.CG-SS Creative Visuals Series of 5 transparencies (511.CG-65 to 511.CG-69)
D-TIME-9	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second-Grade" Series #511.CG-SS Creative Visuals Series of 5 transparencies (511.CG-65 to 511.CG-69)
D-TIME-10	TP	Clocks - Money	Each projectual can be used with the appropriate objective. Titles: "Collections containing pennies, nickels, and dimes; pennies, nickels, dimes, quarters, and half-dollars; clocks and time; telling time; a clock."	"Elementary School Math-Second-Grade" Series #511.CG-SS Creative Visuals Series of 5 transparencies (511.CG-65 to 511.CG-69)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SOM-1	FS	Advancing In Linear Measurements	With D-SOM-1, some of the FS will be beyond the scope of the objective, and may be omitted; with E-SOM-5, much of the FS will be review. Content: "How to read a ruler and a tape measure. How to change different units of measure into other units of measure. How to (a) add, (b) subtract, (c) multiply, and (d) divide different units of measure."	"Using And Understanding Numbers: Decimals And Measurements" Series A538-6 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-SOM-1	FS	Measurement	Historical overview, not practical instruction; actually touches on some types of measurement that are not included under S.O.M. objectives (area, volume, angles, graphs, etc.).	Arithmetic Series - Set No. 2 McGraw-Hill Book Co. #400325 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
D-SOM-1	TP	Measurement - Standard Units	Different projectuals can be used with appropriate objectives. Titles: "Liquid measurement; Linear measurement; Weight; Dry measure."	Instructo Corporation No. 845-A Series of 4 transparencies, with individual sheets of descriptions, suggestions. (845-1 to 845-4)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SOM-1	FS	The Story Of Weights And Measures	Historical Overview Content: "....How measurement was developed by the Babylonians, The Egyptians, The Romans, The British, and The French... The History of Linear Measurement, volume, and weight...how the French standardized all of these under the metric system....."	"Backgrounds of Civilization" Series #224 Curriculum Films Narrative on FS
D-SOM-2	TP	Measurement - Standard Units	Different projectuals can be used with appropriate objectives. Titles: "Liquid measurement; linear measurement; weight; dry measure."	Instructo Corporation No. 845-A Series of 4 transparencies, with individual sheets of descriptions, suggestions. (845-1 to 845-4)
D-SOM-2	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
D-SOM-2	FS	Experiences With Measurements	Covers also dozens and pounds.	"Arithmetical Experiences For The Third Year" #51-B Eye Gate House, Inc. Narrative on FS; Teachers Manual gives

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SOM-2	F	Let's Measure: Pints, Quarts, And Gallons	Covers gallon, half-gallon, quart, pint and cup. Content: "....Discovers numerical relationships among the standard measures and learns that the shape of a measure does not affect the amount it will hold.....sees symbols for the measures and identifies various quantities...."	Coronet Instructional Filss #923 Teacher's Guide gives description, suggestions. 16MM - Narrative on Soundtrack.
D-SOM-2	FS	Measuring How Much	When used with C-SOM-3; the portion of the FS beyond the scope of it may be omitted; with D-SOM-2, some of the FS will be review. Content: "This filmstrip is intended to develop basic understandings of simple liquid measurements. It includes recognition of the units of liquid measuring cups, pints, quarts, half-gallons and gallons and the relationship between the units of liquid measure."	"Mathematics For Primary Grades" Series No. 1020 - Filmstrip 8 (1028) The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SOM-3	FS	Measures: Counting, Adding, Subtracting	When used with either of the two objectives, the portion dealing with the other objective may be omitted. FS also reviews fractions at beginning. Content: "....Parts of a whole.... halves, thirds, and fourths.... quarts, pints, and half-pints..poinds and ounces - scale...inches, feet,yard..."	"Using Modenn Mathematics - Group 3" Series A537-20 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-SOM-3	FS	Modern Mathematics: Simple Measures	FS also previews pounds and the thermometer, and reviews dozens; these sections may be omitted if desired. Content: "Recognizing simple measures and their values. Associating the correct measure with each item to be measured. Meaning, understanding, and use of: a) A ruler in simple measurements b) Qts, pints, and 1/2-pts. c) Weighing, in Lbs. and half-lbs. d) Dozens and half-dozens e) The thermometer."	"Using Modern Mathematics -- Group 1-2" Series A531-11 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-SOM-3	FS	Modern Mathematics: Simple Measures	FS also previews pounds and the thermometer, and reviews dozens; these sections may be omitted if desired. Content: "Recognizing simple measures and their values. Associating the correct measure with each item to be measured. Meaning, understanding, and use of: a) A ruler in simple measurements. b) Qts, pints, and 1/2-pts. c) Weighing, in Lbs. and half-Lbs. d) Dozens and half-dozens. e) The thermometer."	"Using Modern Mathematics -- Group 1-2" Series A531-11 Society For Visual Education, Inc. (SVE) Narrative on FS.
D-SOM-4	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
D-SOM-5	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-GEOM-1	FL	Closed Curves	Concept toward end of film may be too advanced, and may be omitted. "Purposes: To differentiate between open and closed curves. To show that lines and closed curves divide a plane into regions. To help students discover a simple rule describing the intersection of closed curves and straight lines drawn (1) between 2 pts, inside the curve, and (2) from pts. outside to pts. inside."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80077 Encyclopaedia Britannica Educational Corp. No. 20077 (Silent); description, suggestions attached
D-GEOM-1	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-GEOM-2	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33)
D-GEOM-3	FS	Geometric Figures	When used for D-GEOM-3, the section on plane figures may serve as introductory or be omitted; for F-GEOM-5, the section on solids may serve as review.	"Man And Measures" Series Filmstrip House Narrative on FS.
D-S.T.-1	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger numerals; ancient roman numerals; modern roman numerals; the abacus; hindu numerals; place-value numerals; the numeral 10; from 99 to 100; the importance of "0" digits; expanded notation ÷ Part 1; expanded notation - Part 2...."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
D-S.T.-1	FS	Numbers Through The Ages	Historical description, rather than practical instruction. Content: "This filmstrip deals with some important number systems used by ancient peoples. The systems used by the Egyptians, Babylonians, Greeks, and Romans are compared..... ....These early systems are then compared with our number system."	New Horizons In Arithmetic Series #116212 McGraw-Hill Text-Films #116212 Narrative on FS; Filmstrip Guide frame-by-frame explanations, suggestions.
D-S.T.-1	FS	Roman Numerals	With C-S.T.-1, the latter part of the FS may be to advanced, and may be omitted or serve as introductory material; with D-S.T. -1, the first part will be review.	"Mathematics" Series #A-127 Your Lesson Plan Filmstrips, Inc. Narrative on FS
D-S.T.-3	FS	A Graph Tells A Story	Content: ".....The representation of mathematical information through words, tables, and through a bar graph...learn to use a number scale in order to read a bar graph...learn to interpret the meaning of bar graphs and to make comparisons.....extends the concepts involved in reading and using vertical or horizontal bar graphs with different scales to understand the story told by the graph...,"	#1221 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-NUM-2	TP	Multiplication Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; an addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 transparencies (511.CF-54 to 511.CF-64)
E-NUM-5	FS	Decimal Fractions.....Tenths		"Learning New Numbers..... Decimals" Series No. 2 Filmstrip House Narrative on FS
E-NUM-6	FS	Decimal Fractions And Reading Instruments	FS is in two parts: First half (E-NUM-6) includes all 4 arithmetic operations (+, -, x, ÷) with decimal fractions; second half (E-SOM-1) is general introduction to all types of measuring instruments.	Arithmetic Series - Set No. 2 McGraw-Hill Book Co. #400324 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-NUM-6	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective. Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; perc	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency-duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-NUM-6	FS	Meaning And Reading Of Decimals	Specific portions of the FS can be used with the appropriate objective; FS also reviews several previous objectives (money, numeration, etc.) Content: "Recognizing decimals and their uses. Associating decimal number symbols and oral number words. Developing a fuller meaning of place value. Reading and writing decimals. Understanding mixed decimals and mixed numbers; pure decimals and common fractions."	"Using And Understanding Numbers: Decimals and Measurements" Series A538-1 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-NUM-7	FS	Meaning And Reading Of Decimals	Specific portions of the FS can be used with the appropriate objective; FS also reviews several previous objectives (money, numeration, etc.) Content: "Recognizing decimals and their uses. Associating decimal number symbols and oral number words. Developing a fuller meaning of place value. Reading and writing decimals. Understanding mixed decimals and mixed numbers; pure decimals and common fractions."	"Using And Understanding Numbers: Decimals and Measurements" Series A538-1 Society for VisualEducation, Inc. (SVE)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-NUM-7	FS	Decimal Fractions...Hundredths		"Learning New Numbers.... Decimals" Series No. 3 Filmstrip House Narrative on FS.
E-NUM-8	FS	Comparing Decimals	Content: "....Which fraction, or part of a thing, is largest when the parts are written as decimals. ....Needs to change fractions to decimals and compare the decimals."	"Decimals and Percentage" Series #212 Curriculum Films Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-PV-1	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a teachers guide for each transparency.
E-PV-2	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger numerals; ancient roman numerals; modern roman numerals; the abacus; hindu numerals; place-value numerals; the numeral 10; from 99 to 100; the importance of "0"; digits; expanded notation-part 1; expanded notation-part 2...."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-PV-5	FS	Meaning And Reading Of Decimals	Specific portions of the FS can be used with the appropriate objective; FS also reviews several previous objectives (money, numeration, etc.). Content: "Recognizing decimals and their uses. Associating decimal number symbols and oral number words. Developing a fuller meaning of place value. Reading and writing decimals. Understanding mixed decimals and mixed numbers; pure decimals and common fractions."	"Using And Understanding Numbers: Decimals And Measurements" Series A538-1 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-PV-7	FS	Meaning And Reading Of Decimals	Specific portions of the FS can be used with the appropriate objective; FS also reviews several previous objectives (money, numerations, etc.). Content: "Recognizing decimals and their uses. Associating decimal number symbols and oral number words. Developing a fuller meaning of place value. Reading and writing decimals. Understanding mixed decimals and mixed numbers; pure decimals and common fractions."	"Using And Understanding Numbers: Decimals And Measurements" Series A538-1 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-PV-7	FS	The Meaning Of Numbers	Much in FS is review in nature, but leads up to this objedtive.	"Mathematics" Series #A-94 Your Lesson Plan Filmstrips, Inc. Narrative on FS.
E-ADD-2	FS	Addition and Subtraction Of Whole Numbers	The part of the FS on subtraction is really examined with respect to its relation to addition. Parts of the FS which are irrelevant to these objectives may be omitted Content: "The commutative, associative, and closure properties, the zero element; addition and subtraction as inverse operations."	"Seeing the Use Of Numbers" Series (#162) Set V - Filmstrip B Eye Gate House, Inc. #162-B Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.).
E-ADD-2	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Develops the structural properties of addition by showing the application of the commutative, associative, identity number, and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 to MT5-15) 50 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-ADD-2	FS	Properties Of Numbers: Addition And Subtraction	FS is in individual parts, which can be used with individual appropriate objective; the emphasis of the FS is on addition, but it may serve to introduce similar concepts with respect to subtraction; FS also reviews 0 in add. and subtr. Content: "....Discusses the basic properties of addition and subtraction. It explains the commutative and associative laws of addition, the properties of zero in addition and subtraction, and inverse operations."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400531 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-ADD-3	FS	Addition And Subtraction Of Whole Numbers	The part of the FS on subtraction is really examined with respect to its relation to addition. Parts of the FS which are irrelevant to these objectives may be omitted. Content: "The commutative, associative, and closure properties, the zero element; addition and subtraction as inverse operations."	"Seeing The Use of Numbers" Series (#162) Set V - Filmstrip B Eye Gate House, Inc. #162-B Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. correlated with "Learning To Use Arithmetic-book 5" (D.C. Heath And Co.)

Objectives	Aid	Title	Content	Source
E-ADD-3	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective.	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 to MT5-15), 50 overlays, and a Teachers Guide for each transparency.
E-ADD-3	FS	Properties Of Numbers: Addition And Subtraction	FS is in individual parts, which can be used with individual appropriate objective; the emphasis of the FS is on addition, but it may serve to introduce similar concepts with respect to subtraction; FS also reviews 0 in add. and subtr. Content: "....Discusses the basic properties of addition and subtraction. It explains the commutative and associative laws of addition, the properties of zero in addition and subtraction, and inverse operations."	Arithmetic Series Set 3 McGraw-Hill Text-films #400531 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-ADD-4	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-ADD-5	FS	Adding And Subtracting Decimals	Content: "...Add decimals correctly by writing the decimals in a column with the decimal points under each other, and by placing the decimal point in the sum before starting to add..... ....Can subtract decimals easily if they keep the decimal points in line and write the decimal point in the answer before subtracting."	"Decimals And Percentage" Series #213 Curriculum Films Narrative on FS.
E-ADD-5	FS	Adding Decimal Numbers		"Learning New Numbers..... Decimals" Series No. 4 Filmstrip House Narrative on FS.
E-ADD-5	FS	Addition And Subtraction Of Decimals	First half of FS addition, second half subtraction; word-problem examples given throughout FS. Content: "Addition of decimals and some of their uses...subtraction of decimals and some of their uses...."	"Using And Understanding Numbers: Decimals And Measurements" SEries A538-2 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-ADD-5	FS	Addition With Decimals	Introduces addition of decimals; problems are very elementary. Content: "...The parallel between the fraction form and the decimal form...compute sums with decimals less than one... decimal representation of numbers larger than one, and how to think of these "larger" numbers as the sum of a whole number and a number less than 1...how the sum of such numbers may be computed..."	Set F-5: "Operations And Decimals" #1218 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-ADD-5	FS	Decimal Fractions	With the add, sub, and mul objectives, inappropriate portions of the FS may either be omitted, used as preview, or used as review; F-MUL-7 and F-MUL-8 can be covered simultaneously by this FS (which would then include a review of decimal addition and subtraction.) Content: "...Seek rules for adding, subtracting, and multiplying decimal fractions and decimal mixed numbers."	"Kenner on Modern Mathematics - Number Bases and the Decimal System" Series - No. 4 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-ADD-5	FS	Fractions In Decimal Notation	FS first reviews decimal place value concepts. Content: "A discussion of what is meant by powers of 10; the meaning of tenths, hundredths, and thousandths; discussion of how these fractions fit into the decimal system of numeration, and consequently, how computing with fractions in decimal notation is like computing with whole numbers; comparing fractions; adding and subtracting fractions in decimal notation."	"Seeing the Use Of Numbers" Series (#162) Set V - Filmstrip J Eye Gate House, Inc. #162-J Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. correlated with "Learning To Use Arithmetic - book 5" (D.C. Heath And Co.)
E-SUB-1	TP	From Operations On Numbers To Computation (Addition And Subtraction)	Each projectual can be used with the appropriate objective. Content: "Demonstrates computation (addition and subtraction) initially using place-value grids and number lines for better visualization and to clarify understanding. Utilizes expanded notation to bring out idea of ten as the key to easy computation."	Series MT7 Colonial Films, Inc. Includes 14 transparencies (MT7-1 to MT7-14), 46 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SUB-2	FS	Adding And Subtracting Decimals	Content: "...Add decimals correctly by writing the decimals in a column with the decimal points under each other, and by placing the decimal point in the sum before starting to add.... ....Can subtract decimals easily if they keep the decimal points in line and write the decimal point in the answer before subtracting."	"Decimals And Percentage" Series #213 Curriculum Films Narrative on FS.
E-SUB-2	FS	Addition And Subtraction Of Decimals	First half of FS addition, second half subtraction; word-problem examples given throughout FS. Content: "Addition of decimals and some of their uses... subtraction of decimals and some of their uses..."	"Using And Understanding Numbers: Decimals and Measurements" Series A538-2 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SUB-2	FS	Decimal Fractions	With the add, sub, and mult objectives, inappropriate portions of the FS may either be omitted, used as preview, or used as review; F-MUL-7 and F-MUL-8 can be covered simultaneously by this FS (which would then include a review of decimal addition and subtraction.) Content: "....Seek rules for adding, subtracting, and multiplying decimal fractions and decimal mixed numbers."	"Kenner on Modern Mathematics - Number Bases and The Decimal System" Series - No. 4 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
E-SUB-2	FS	Fractions In Decimal Notation	FS first reviews decimal place value concepts. Content: "A discussion of what is meant by powers of 10; the meaning of tenths, hundredths, and thousandths; discussion of how these fractions fit into the decimal system of numeration, and consequently, how computing with fractions in decimal notation is like computing with whole numbers; comparing fractions; adding and subtracting fractions in decimal notation."	"Seeing the Use Of Numbers" Series (#162) Set V - Filmstrip J Eye Gate House, Inc. #162-J Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 5 " (D.C. Heath And Co.)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SUB-2	FS	Decimal Fractions...Subtraction		"Learning New Numbers... Decimals" Series No. 5 Filmstrip House Narrative on FS.
E-MUL-1	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-2	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivaletn sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
E-MUL-2	FS	Multiplication: Group III	All frames show multiplication problems with 2 factors (ranging from 0 through 9) and products no higher than 49, in this form: $\begin{array}{r} 8 \\ \times\ 5 \\ \hline 40 \end{array}$	Basic Numbers -- Speed-1-O-Strip Series A536-20 Society For Visual Education, Inc. (SVE)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-2	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies.
E-MUL-2	FS	Multiplication: Group IV	All frames show multiplication problems with 2 factors (ranging from 0 through 9) and products no higher than 81, in this form: $\begin{array}{r} 7 \\ \times\ 8 \\ \hline 56 \end{array}$	Basic Numbers -- Speed-1-O-Strip Series A536-21 Society For Visual Education-Inc. (SVE) Narrative on FS.
E-MUL-2	TP	Multiplication of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Even and odd numbers; multiples of 3, 4, and 5; introduction to multiplication; multiplication and repeated addition; multiplication and the number line; the order principle of multiplication; finding products; multiplication by 1 and 0; and addition table; a multiplication table."	"Elementary School Math-Second Grade" Series #511.CF-SS Creative Visuals Series of 11 Transparencies (511.CF-54 to 511.CF-64)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-3	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency-duplicating book.
E-MUL-3	FS	Properties of Numbers: Multiplication And Division	FS is in individual parts, which should be used with individual appropriate objectives; the emphasis of the FS is on multiplication, so it may serve to introduce similar concepts with respect to division; FS also reviews 0 and 1 in mult. and div. Content: "....Discusses basic properties of multiplication and division.. inverse operations, why mult. is commutative and div. is not, why mult. is associate and div. is not, the properties of 1 & 0 in relation to mult. and div., and the distributive property of multiplication over addition."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400532 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-3	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
E-MUL-4	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency-duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-4	FS	Properties Of Numbers: Multiplication And Division	FS is in individual parts, which should be used with individual appropriate objectives; the emphasis of the FS is on multiplication, so it may serve to introduce similar concepts with respect to division; FS also reviews 0 and 1 in mult. and div. Content: "....Discusses basic properties of multiplication and division. inverse operations, why mult. is commutative and div. is not, why mult. is associate and div. is not, the properties of 1 and 0 in relation to mult. and div., and the distributive property of multiplication over addition."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400532 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-MUL-4	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency-duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-4	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
E-MUL-4	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-4	FS	Changing The Grouping: Multiplication And Division	Purposes: "To give the children an opportunity to investigate the results of changing the grouping of numbers in multiplication and division. To help the children understand the associative property of multiplication."	Modern Arithmetic Series - Grades 3 and 4 #405431 McGraw-Hill Text-Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-MUL-4	FS	The Associative Property Of Multiplication	When used with E-MUL-4, the latter part of the FS may serve to preview later work or may be omitted; with F-MUL-2, some of the FS will be review. Content: "....Finding the product of 3 nos...We group these factors two at a time, using parentheses...may be grouped in 2 different ways, but product remains the same..this property known as associative property.. ..the associative property may make computation easier..we may use the property to regroup the factors...."	Set F-12: "Operations And Whole Numbers II" #1243 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

Objectives	Aid	Title	Content	Source
E-MUL-5	FS	Properties Of Numbers: Multiplication And Division	FS is in individual parts, which should be used with individual appropriate objectives; the emphasis of the FS is on multiplication, so it may serve to introduce similar concepts with respect to division; FS also reviews 0 and 1 in mult. and div. Content: "...Discusses basic properties of multiplication and division. inverse operations, why mult. is commutative and div. is not, why mult. is associate and div. is not, the properties of 1 & 0 in relation to mult. and div., and the distributive property of multiplication over addition."	Arithmeitc Series Set 3 McGraw-Hill Text-Films #400532 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-MULT-5	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops identity number, inverse operation and multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

the commutative, associative, identity and distributive properties of mul-

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-5	FS	Linking Multiplication And Addition	Content: "....Two ways to find a product when one factor is expressed as a sum of two addend....this idea used to multiply a 2-digit no. by a 1-digit no.... multiplication algorism is diveloped...horizontal and vertical forms for doing computation...."the distributive property...."	Set F-3: "Operations And Whole Numbers 1" #1210 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-MUL-5	F	Multiplication For Beginners	Film first review several concepts, such as repeated addition, multiplication by 1 and 0, and the commutative law (which it refers to as the "rule of order") Content: "Moving from the simple concept of repeated addition, we introduce the importance of multiplication facts and the use of the number line in checking them. Arrays are explained and used to help explain the law of order and the distributive law for multiplication."	(Second Edition Of "Multiplication Is Easy") Coronet Instructional Films #1691 Teachers Guide gives description, suggestions. 16MM - Narrative on soundtrack

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-5	FS	The Distributive Property	Purposes: "To give children an opportunity to investigate the relation between multiplication and addition. To help children understand the distributive property of multiplication over addition."	Modern Arithmetic Series - Grades 3 and 4 #405433 McGraw-Hill Text-Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-MUL-6	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-8	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-8	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
E-MUL-9	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-MUL-10	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-DIV-1	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
E-DIV-1	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Domonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a teachers guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-DIV-1	FS	Division: Group III	All frames show division problems with dividends 0 through 72, divisors 2 through 9, and quotients 0 through 9, in this form: $3\overline{)24}$ $\;8$	Basic Numbers - Speed-1-0-strip series A536-24 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-DIV-1	FS	Division: Group IV	All frames show division problems with dividends 2 through 72, divisors 2 through 9, and quotients 1 through 9, in this form: $8\overline{)56}$ $\;7$	Basic Numbers -- Speed-1-0-Strip Series A536-25 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-DIV-3	FS	Estimating Quotients: Whole Numbers	Not exactly the same technique as this objective; but related, and applicable to the same types of problems. Content: "Demonstrates the process of finding quotients by using multiplication and subtraction, Develops the idea of estimating quotients by finding an interval in which the quotient must fall."	Set F-12: "Operations And Whole Numbers II" #1225 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-DIV-3	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a teachers guide for each transparency.
E-DIV-4	FS	Division With Remainders	Can use this FS to cover both objectives. Content: "Review of the multiplication and division facts of 2 and 3; the relations of multiplication to addition, multiplication to division, and division to subtraction, discussion of remainders."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip C Eye Gate House, Inc. #133-C Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)

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Objectives	Aid	Title	Content	Source
E-DIV-5	FS	Division With Remainders	Can use this FS to cover both objectives. Content: "Review of the multiplication and division facts of 2 and 3; the relations of multiplication to addition, multiplication to division, and division to subtraction, discussion of remainders."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip C Eye Gate House, Inc. #133-C Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.).
E-DIV-5	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-DIV-5	FS	Equal Groups, 4 And 5	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 4 and 5. Content: "multiplication and division facts of 4 and 5; the relation of multiplication to addition, multiplication to division, division to subtraction; uneven divisions where 4 or 5 is either the divisor or the quotient."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip D Eye Gate House, Inc. #133-D Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)
E-DIV-5	FS	Equal Groups, 6 and 7	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 6 and 7. Content: "multiplication and division facts of 6 and 7; uneven divisions by 6, by 7; relations among the four operations."	"Seeing The Use Of Numbers" Series (#133) Set IV - filmstrip E Eye Gate House, Inc. #133-E Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-DIV-5	FS	Equal Groups, 8 And 9	For D-COP-3, the last part of the FS (on division with remainder) may either be omitted or used as introductory material; for E-DIV-5, the FS first reviews multiplication and no-remainder division concepts for 8 and 9. Content: "Multiplication and division facts of 8 and 9; uneven divisions by 8, by 9; relations among the four operations."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip F Eye Gate House, Inc. #133-F Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)
E-DIV-5	FS	Recording Division	Content: "The rationale of the long division algorism, including the relation of division to subtraction and the relation of division to multiplication, and the use of place value in the standard algorism; most divisions have one-place divisors and two - or three-place quotients."	"Seeing The Use Of Numbers". Series (#133) Set IV - Filmstrip I Eye Gate House, Inc. #133-I Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-2	TP	From Operations On Numbers To Computation (Multiplication And Division	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.
E-COP-2 -	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-2	FS	Equations	Content: "In this filmstrip, children are afforded many opportunities to see equations as precise expressions of mathematical thinking; to use the idea of a number having many names; and to apply the commutative, associative, and distributive principles."	Modern Arithmetic Series -- Grades 5 and 6 McGraw-Hill, Inc. #643120 Narrative on FS, But Filmstrip Guide gives frame-by-frame expalnations,
E-COP-3	FS	True/False Statements And Open Sentences	Will be basically review in nature, but cannot be used earlier because of difficulty of arithmetic operations. Content "This filmstrip presents a development of mathematical sentences. The emphasis is on why a sentence is considered true, false, or open. How a false statement may be changed to make it a true statement. How an open sentence may be completed to make it a true statement. There is constant reinforcement of the basic number facts through emphasis on the naming of numbers and the relationship between numbers."	Modern Arithmetic Series -- Grades 5 and 6 #643116 McGraw-Hill, Inc. Narrative on FS, But Filmstiip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-4	FS	True/False Statements And Open Sentences	Will be basically review in nature, but cannot be used earlier because of difficulty of arithmetic operations. Content: "This filmstrip presents a development of mathematical sentences. The emphasis is on why a sentence is considered true, false, or open. How a false statement may be changed to make it a true statement. How an open sentence may be completed to make it a true statement.	Modern Arithmetic Series -- Grades 5 & 6 McGraw-Hill, Inc. #643116 Narrative on FS; But Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-COP-4	FS	Naming Numbers	Covers order of operations at end of FS. Content: "This filmstrip introduces and develops the concept that a number may be named in many ways...the number being named is expressed as a sum, a remainder, a product, a quotient, and as the result of more than one operation."	Modern Arithmetic Series -- Grades 5 and 6 McGraw-Hill, Inc. #043115 Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-4	FS	What Do You Know?	In these problems, the signs are given and numbers are asked for. Content: "....Open sentences, truth sets, inequalities, and two new signs (> and <)...."	"Seeing The Use Of Numbers" Series (#133) Set IV - filmstrip J Eye Gate House, Inc. #133-J Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath and Co.)
E-COP-5	FS	Number Patterns - Averages	Also covers several methods of finding average of set of numbers with a common difference. Conten: "...The important concept of average...a procedure for finding the average of the numbers of a set..special sets of numbers -- sequences which have a common difference.. examining, a set of numbers to determine whether the numbers have this special relationship... a "short" method to find the average of such special sets of numbers...."	Set F-1: "Numbers" #1212 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-6	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.
E-COP-6	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Develops the structural properties of addition by showing the application of the commutative, associative, identity number, and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 to MT5-15), 50 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-7	FS	Meaningful Arithmetic: Quantitative Thinking	Emphasis is on general quantitative thinking, not necessarily word problems; but the overview seems appropriate at this level; it touches on virtually all types of problems (addition, multiplication, area, time, money, etc.).	"Mathematics" Series #A-128 Your Lesson Plan Filmstrips Inc. Narrative on FS.
E-COP-7	FS	Solving Problems	General approach to solving word problems; use at appropriate level in terms of difficulty of specific arithmetic operations within the problems. "Content: The presentation of problem solving in this filmstrip emphasizes the understanding of the nature of a problem, seeing the action in the problem, translating the action into mathematical sentences, and finding several ways to solve the problem."	Modern Arithmetic Series -- Grades 5 and 6 #043119 McGraw-Hill, Inc. Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-COP-7	FS	Talking About Numbers	FS first reviews various objectives (odd-even, place value, etc.), then gives word problems. Content: "Definite and indefinite number words; ordinals; even and odd numbers; place value; general review of addition and subtraction including vocabulary, key facts, and the use of place value in addition and subtraction through three-place numbers."	"Seeing The Use Of Numbers" Series (#133) Set IV - filmstrip A Eye Gate House, Inc. #133-A Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.).
E-FRAC-1	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "One-half and one-third; one-fourth and one-fifth; two-thirds and three-fourths; introduction to division."	"Elementary School Math-Second Grade" Series #511.CH-SS Creative Visuals Series of 4 transparencies (511.CH-70 to 511.CH-73).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-1	FS	Modern Mathematics: Fractions	Various parts of the FS apply to each of the objectives; FS may be used, omitting the innappropriate portions in each case, for all of these objectives. Content: "...Fractional numbers...parts of a whole...parts of a set (group)...numerator and denominator...fractional equivalents...comparison as to size...symbols:> ,<, =, and the fraction bar... simple addition of fractional parts of wholes...."	"Using Modern Mathematics -- Group 4" Series A532-5 Society For Visual Education, Inc, (SVE) Narrative on FS.
E-FRAC-2	FS	Modern Mathematics: Fractions	Various parts of the FS apply to each of the objectives; FS may be used, omitting the innappropriate portions in each case, for all of these objectives. Content: "...Fractional numbers..parts of a whole..parts of a set (group)...numerator and denominator...fractional equivalents...comparison as to size...symbols: > ,< , =, and the fraction bar...simple addition of fractional parts of wholes...."	"Using Modern Mathematics -- Group 4" Series A532-5 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-3	FS	Modern Mathematics: Fractions	Various parts of the FS apply to each of the objectives; FS may be used, omitting the innappropriate portions in each case, for all of these objectives. Content: "....Fractional numbers... parts of a whole...parts of a set (group)...numerator and denominator...fractional equivalents...comparison as to size...symbols: > , < , =, and the fraction bar...simple addition of fractional parts of wholes...."	"Using Modern Mathematics - Group 4" Series A532-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-3	FS	Fraction Numerals; Concepts	FS can be used for both these objectives; inappropriate portions may be omitted. Content: "Fractional parts of a region and of a set...terms of a fraction as number pairs... numerator and denominator... use of zero in the numerator... equivalent fractional parts of regions and sets... changing fractions to lower, lowest, and higher terms..."	"Using Modern Mathematics -- Group 5" Series A532-12 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-3	FS	The Origin And Meaning Of Fractions	Mostly historical, but a good overview to fractions and an introduction to terminology. Content: "How fractions came to be. How fractions were written by early civilizations. What meanings a fraction may have."	"Understanding Fractions" Series A530-1 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-4	FS	Modern Mathematics: Fractions	Various parts of the FS apply to each of the objectives; FS may be used, omitting the innappropriate portions in each case, for all of these objectives. Content: "....Fractional numbers... parts of a whole...parts of a set (group)....numerator and denominator...fractional equivalents...comparison as to size...symbols: >, <, =, and the fraction bar...simple addition of fractional parts of whole...."	"Using Modern Mathematics - Group 4" Series A532-5 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-4	FS	Fraction Numerals; Concepts	FS can be used for both these objectives; inappropriate portions may be omitted. Content: "Fractional parts of a region and of a set...terms of a fraction as number pairs... numerator and denominator... use of zero in the numerator... equivalent fractional parts of regions and sets... changing fractions to lower, lowest, and higher terms..."	"Using Modern Mathematics -- Group 5" Series A532-12 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-4	F	Adding Fractions	Emphasis two-fold: Adding fractions with like denominators, and changing fractions to higher or lower terms; also serves to introduce addition of fractions with unlike denominators. Content: "...The concept of combining like things and its relation to the addition of fractions... changing the terms of fractions.. adding like, unlike, and improper fractions and mixed nos...situations where fractions are frequently added...."	"Building Concepts In Mathematics" SEries 5217 -#3 John Co-burn Associates, Inc. Related to FS of same name 16MM - Narrative on Soundtrack Teachers Guide gives description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-4	FS	Adding Fractions	Emphasis is two-fold: Adding fractions with like denominators, and changing fractions to higher or lower terms; FS also serves to introduce addition of fractions with unlike denominators. Content: "....We add only like fractions, unlike fractions must be expressed with a common denominator before adding..."	"Building Concepts In Mathematics" Series 5217 -#3 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.
E-FRAC-4	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (With 128 overlays); Related to film and FS Series' of same name.
E-FRAC-4	FS	Changing The Terms Of Fractions	Covers: "Changing fractions to higher terms, reducing fractions to lower terms, reducing fractions to lowest terms, and the reasons for changing the terms of fractions."	Fraction Series A535-2 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-4	FS	Different Names For The Same Fractional Number	FS also covers cross-products of fractions, which can be omitted if desired. Content: "The law of equivalence. The cross-product of two fractions. Higher and lower terms."	"Understanding Fractions" Series A530-4 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-4	FS	Fraction Forms	FS also serves to introduce improper fractions (or can omit this section).	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-C Narrative on FS; Teachers Manual gives suggestions.
E-FRAC-4	TP	Modern Math: Hard Spots, Grade 3	Each projectual can be used with the appropriate objective. Order corresponds to that of projectuals. Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-4	FL	Fractions	"Purposes: To explain that the property of 1 can be used to write equivalent fractions. To show that only like fractions can be added or subtracted."	Elementary Mathematics Series Regular 8MM film loop No. R-80075 Encyclopaedia Britannica Educational Corp. no. 20075 (Silent); description, suggestions attached
E-FRAC-4	F	How To Change Fractions	Content: "Presents the process of changing one common fraction to another of equal value but with different terms."	"Elementary General Math" Series #3014 Modern Learning Aids (MLA) 16MM-Narrative on soundtrack explanations, suggestions on Teachers Guide inside film container
E-FRAC-4	FS	Working With Fractions	First reviews fractions in general. Content: "Review of vocabulary and fundamental concepts of fractions; an informal introduction to the idea that the reason multiplying or dividing both terms of a fraction by the same number does not change the value of the fraction is that the fraction is really being multiplied or divided by 1."	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip E Eye Gate House, Inc. #162-E Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 5" (D.C. Heath And Co.).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-4	FS	Using One To Rename: Fractions	Uses identity property of 1 and multiplication of fractions. Content: "...Use diagrams and the number line to find many names for the same fractional number...a general rule for the multiplication of fractional numbers by a skillful use of the number line...uses the identity property of 1 to find new names for fractional numbers without the use of diagrams and the number line...	Set F-4: "Operations And Fractions 1" #1213 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-FRAC-5	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-5	FS	Modern Mathematics: Fractions	VArious parts of the FS apply to each of the objectives; FS may be used, omitting the innappropriate portions in each case, for all of these objectives. Content: "....Fractional numbers... parts of a whole...parts of a set (group)....numerator and denominator...fractional equivalents...comparison as to size...symbols: , , =, and the fraction bar...simple addition of fractional parts of wholes..."	"Using Modern Mathematics - Group 4" Series A532-5 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-6	FL	Fractions	"Purposes: To explain that the property of 1 can be used to write equivalent fractions. To show that only like fractions can be added or subtracted."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80075 Encyclopaedia Britannica Educational Corp. No. 20075 (Silent); description, suggestions attached

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-6	F	Adding Fractions	Emphasis two-fold: adding fractions with like denominators, and changing fractions to higher or lower terms; also serves to introduce addition of fractions with unlike denominators. Content: "...the concept of combining like things and its relation to the addition of fractions.. changing the terms of fractions...adding like, unlike and improper fractions and mixed nos....situations where fractions are frequently added...."	"Building Comcepts In Mathematics" Series 5217-#3 John Colburn Associates, Inc. Related to FS of same name. 16MM-Narrative on soundtrack Teachers Guide gives description, suggestions.
E-FRAC-6	FS	Adding Fractions	Emphasis is two-fold: adding fractions with like denominators, and changing fractions to higher or lower terms; FS also serves to introduce addition of fractions with unlike denominators. Content: "....We add only like fractions...unlike fractions must be expressed with a common denominator before adding....."	"Building Concepts In Mathematics" SEries 5217-#3 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-6	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS series' of same name.
E-FRAC-6	TP	Fractions	Each projectual can be used with the appropriate objective. Titles: "introduction to fractions; concept of fractions; fractional number line."	Instructo Corporation No.830-A Series of 3 transparencies, with individual sheets of descriptions, suggestions. (830-1 to 830-3)
E-FRAC-6	FS	Adding Like Fractions And Mixed Numbers	If used with E-FRAC-6, FS will serve also to introduce F-FRAC-1; if used with F-FRAC-1, FS will serve also to review E-FRAC-6.	Fraction Series A535-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-6	F	How To Add Fractions	With E-FRAC-6, latter portion will serve to introduce addition of fractions with unlike denominators; with F-FRAC-2, most of film will serve to review addition of fractions with common denominators. Content: "Designed to assist the class in visualizing the process of addition as applied to common fractions."	"Elementary General Math" Series #3012 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack explanations, suggestions on Teachers Guide inside film container.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-FRAC-6	F	How To Subtract Fractions	With E-FRAC-6, latter portion will serve to introduce subtraction of fractions with unlike denominators; with F-FRAC-2, most of film will serve to review subtraction of fractions with common denominators. Content: "Reviews the process of subtraction and shows how the process is applied to fractions, having a common denominator."	"Elementary General Math" Series #3013 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack explanations, suggestions on Teachers Guide inside film container.
E-FRAC-6	FS	Modern Mathematics: Number Line -- Fractions	Develops method of using the number line in adding and subtracting fractions with like denominators; at end of FS, improper fractions are examined -- this section may be omitted if too advanced.	"Using Modern Mathematics -- Group 4: Series A532 - 7 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-FRAC-6	FS	Subtracting Like Fractions And Mixed Numbers	Will serve to introduce mixed numbers also (which are the next fractions objective).	Fraction Series A535-4 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
E-FRAC-6	FS	The Meaning And Use Of Fractions And Measures	FS also reviews various concepts in fractions and measurement; parts of FS may seem advanced or irrelevant, and may be omitted. Content: "Meaning of fractions; comparison of fractional numbers; applications of fractions in measures; addition and subtraction of like fractions; extension to addition and subtraction of unlike related fractions."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip H Eye Gate House, Inc. #133-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 4" (D.C. Heath And Co.)
E-TIME-1	FS	History Of Our Calendar	Historical, not practical	"History of Measures" Series #400138 Young America Films, Inc. Narrative on FS.
E-TIME-1	FS	Modern Mathematics: Time Measurement - Calendar	Content: "....Day, week, date, month, year, and leap year..28, 29, 30, and 31-day months..... date and duration of the four seasons...etc..."	"Using Modern Mathematics -- Group 2" Series A531-17 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-TIME-1	FS	Telling Time	A general overview of all facets of time, not how to tell time (title misleading).	Arithmetic Series - Set No. 2 #400326 McGraw-Hill Book Co. Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-TIME-1	FS	The Calendar	A historical introduction, rather than practical instruction. Content: "....The way our calendar came to be...a real calendar is in the sky...similar means of measuring large units of time evolved in many different cultures because of man's thinking...it took many centuries for the calendar to evolve as a way of keeping track of time...a calendar makes it possible to say when something happened or will happen...."	#1021 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-TIME-1	FS	More Experiences With Measurements	First half of FS covers C-SOM-2, and second half E-TIME-1 -- The two parts are unrelated. In the first half, the FS also previews the definition of the YARD.	"Arithmetical Experiences For The Third Year" #51-C Eye Gate House, Inc. Narrative on FS; Teachers Manual gives suggested activities.
E-TIME-1	F	The Calendar: Days, Weeks, Months	Content: "....Introduces the calendar and shows the relationship of days to weeks and weeks to months.....Learns how to read the calendar...."	Coronet Instructional Films #789 Teachers Guide gives description, suggestions. 16MM - Narrative on Soundtrack.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-TIME-1	FS	The Calendar Tells When	Content: "....Primitive people had their own ways of measuring time without a calendar but these measurements were not exact.....calendar has many uses in everyday life...year is divided into days, weeks and months....year is divided into four seasons. Each season has three calendar months....."	Set H-16: "Time" #922 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-TIME-1	FS	The Story Of Time Measurement	Historical, rather than practical, but a good introduction to study of calendar time, etc. Content: "This filmstrip tells how time came to be measured. It deals with the confusions and discrepancies that arose from the fact that the natural units of time do not fit into any scheme. It deals with both aspects of time, telling time (time at a given moment) and elapsed time (the passage of time)."	"New Horizons In Arithmetic" SEries #-16217 McGraw-Hill Text-Films Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-TIME-1	FS	The Calendar, Time, And Temperature	FS is in four parts, each one pertaining to one of these four objectives. Content: "....roman numerals... clocks and time...calendar.... thermometer and temperature..."	"Using Modern Mathematics - Group 3" Series A537-21 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-TIME-2	TP	Lower Elementary Topics	Each projectual can be used with the appropriate objective. Content: "An aid in understanding basic arithmetic."	Mathematics No. 4 3M Visual Products Cat. No. 559 Contains 27 transparencies
E-SOM-1	FS	Decimal Fractions And Reading Instruments	FS is in two parts; first half (E-NUM-6) includes all 4 arithmetic operations (+, -, x, ÷) with decimal fractions; second half (E-SOM-1) is general introduction to all types of measuring instruments.	Arithmetic Series - Set No. 2 McGraw-Hill Book Co. #400324 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-SOM-1	FS	History Of Weight And Volume Measures	Historical overview	History Of Measure Series #400140 McGraw-Hill Book Co. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SOM-1	FS	Measures: Counting, Adding, Subtracting	When used with either of the two objectives, the portion dealing with the other objective may be omitted. FS also reviews fractions at beginning. Content: "....Parts of a whole... halves, thirds, and fourths... quarts, pints, and half-pints...pounds and ounces - scale.....inches, feet,yard..."	Using Modern Mathematics - Group 3" Series A537-20 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-SOM-1	TP	Measurement - Standard Units	Different projectuals can be used with appropriate objectives. Titles: "Liquid measurement; linear measurement; weight; dry measure."	Instructo Corporation No. 845-A Series of 4 transparencies, with individual sheets of descriptions, suggestions. (845-1 to 845-4).
E-SOM-1	F	Let's Measure: Ounces, Pounds, And Tons	Content: "...Uses the scale to find the way to build up a pound through adding ounces, one-fourth pound and one-half pound are introduced.... discovers how we use weight and learns to estimate weight of common articles."	Coronet Instructional Films #924 Teachers Guide gives description, suggestions. 16MM - Narrative on soundtrack.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SOM-1	F	Let's Measure: Ounces, Pounds, And Tons	Content: "....Uses the scale to find the way to build up a pound through adding ounces. One-fourth pound and one-half pound are introduced.... discovers how we use measurements of weight and learns to estimate weight of common articles."	Coronet Instructional Films #924 Teachers Guide gives description, suggestions 16MM - Narrative on soundtrack.
E-SOM-2	FS	Measures	Although FS doesn't state problems in same form. It also stresses conversion of measurement units. Parts of the FS which are either too advanced or irrelevant to this objective may be omitted. Content: "Counting vs. measuring; the convenience of standard measuring units; review of the use of standard measuring units and the conversion of a measurement from one unit to another."	"Seeing The Use of Numbers" Series (#162) Set V - Filmstrip G Eye Gate House, Inc. #162-G Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 5" (D.C. Heath And co.).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SOM-4	FS	The Calendar, Time, And Temperature	FS is in four parts, each one pertaining to one of these four objectives. Content: "....roman numerals...clocks and time...calendar....thermometer and temperature...."	"Using Modern Mathematics -- Group 3" Series A537-21 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-SOM-4	FS	Experiences With The Thermometer And With Money	First part of FS covers E-SOM-4, and the second part D-MONEY-1; the two parts are unrelated. The second part (MONEY) reviews more elementary money concepts as it develops this particular objective.	"Arithmetical Experiences For The Third Year" #51-D Eye Gate House, Inc. Narrative on FS; Teachers Manual gives suggested activities.
E-SOM-4	FS	How Hot And How Cold? (Temperature)	Content: "The functions, types and construction of the thermometer with a simplified explanation of its scientific principles, are used to demonstrate that heat and cold are measurable in standard quantities. ....some practice in reading thermometers...."	Set H-15: "Measurement" #940 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-SOM-5	FS	Advancing In Linear Measurements	With D-SOM-1, some of the FS will be beyond the scope of the objective, and may be omitted; with E-SOM-5, much of the FS will be review: Content: "How to read a ruler and a tape measure. How to change different units of measure into other units of measure. How to (a) add, (b) subtract, (c) multiply, and (d) divide different units of measure."	"Using And Understanding Numbers: Decimals And Measurements" Series A538-6 Society for Visual Education, Inc. (SVE) Narrative on FS.
E-GEOM-1	FS	Introduction To Plane Geometry	Not specifically aimed at this particular objective, but perhaps the appropriate time for this general overview. Content: "...Geometry has many practical applications.. it is also a logical system.... in any logical system one starts with undefined terms and then defines other terms. Points and lines are usually not defined.-.the modern concept of geometry is not a reproduction of many textbook theorems, but rather working out of originals in order to gain training in real thinking. This filmstrip illustrates the basic elements upon which our logical system is built."	"Plane Geometry" Series #362 Curriculum Films Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-1	FS	Introduction To Plane Geometry	Not specifically aimed at this particular objective, but perhaps the appropriate time for this general overview. Covers: "what geometry is, where geometry is used, who uses geometry, what plane geometry is, and what some of the simple geometric figures are."	Plane Geometry Series A541-1 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-GEOM-1	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles..."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-1	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
E-GEOM-1	FS	Lines And Parts Of Lines	FS first reviews distinction between line and line segment; subject matter appropriate for each of these objectives is covered in the FS. Content: "...Imagine points in space.... pts. are then related so that they form paths...the line as a set of points...symbols for point and line... the idea of a line as unending....the idea of a line segment...the meaning of endpoints of a line segment distinguishes a line segment from a line which has no end-points...lines and points are explored..."	#1226 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

Objectives	Aid	Title	Content	Source
E-GEOM-1	FS	Vocabulary: Lines And Angles - I	Content: "...To know and to use the definitions of lines and angles...."	"Vocabulary" Series #363 A curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.
E-GEOM-2	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33).
E-GEOM-2	FS:	Vocabulary: Lines And Angles - I	Content: "....To know and to use the devinitions of lines and angles...."	"Vocabulary" Series #363 A Curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-3	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33).
E-GEOM-3	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Order corresponds to that of projectuals. Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-3	FS	Basic Triangles	Parts of the FS may be too advanced, and may either be omitted or serve as introductory material. Covers: "What a triangle is, where triangles are used, how to identify the different kinds of triangles."	Plane Geometry Series A541-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
E-GEOM-3	FS	Points, Lines, And Triangles	First reviews points and lines, then covers triangles; some frames may be either irrelevant or too difficult, and may be omitted.	"The Nature Of Geometry" Series - No. 1 Filmstrip House Narrative on FS.
E-GEOM-4	FS	Parallels And Perpendiculars	First half of FS pretains to E-GEOM-4, second half to E-GEOM-9. Can use full FS with the former (with second hald as preview) or the latter (with first half as review), or may omit irrelevant portion, with either objective, the FS contains more information than the objective calls for.	"The Nature Of Geometry" Series - no. 3 Filmstrip House Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-5	FS	Circles	When used with E-GEOM-5, part of the FS may be too advanced, and may either be omitted or used a s/introductory material; with F-GEOM-6, the FS will also serve to review drawing a circle with a compass.	"The Nature Of Geometry" Series - No. 2 Filmstrip House Narrative on FS.
E-GEOM-5	FS	Experimenting With The Circle	With E-GEOM-5, some of the FS will either preview later concepts or may be omitted; with F-GEOM-6, some of the FS will review previous work. Content: "....The idea of a circle as a special set of points... three methods of constructing circles are explored...construct a circle with a given radius....the meaning of a chord and the special chord - the diameter...the relation of the length of a radius and the length of a diameter of the same circle..."	#1216 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-7	FS	Lines And Parts of Lines	FS first reviews distinction between line and line segment; subject matter appropriate for each of these objectives is covered in the FS. Content: "....Imagine points in space.. pts. are then related so that they form paths...the line as a set of points..symbols for point and line... the idea of a line segment...the meaning of endpoints of a line segment distinguishes a line segment from a line which has no endpoints....lines and points are explored...."	#1226 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
E-GEOM-8	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math-Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-26 to 511.CC-33).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-GEOM-9	FS	Parallels And Perpendiculars	First half of FS pertains to E-GEOM-4, second half to E-GEOM-9. Can use full FS with the former (with second half as preview) or the latter (with first half as review), or may omit irrelevant portion. With either objective, the FS contains more information than the objective calls for.	"The Nature of Geometry" Series - No. 3 Filmstrip House Narrative on FS.
E-GEOM-9	FS	Vocabulary: Lines - Relationships, Direction And Perpendiculars	Also covers line direction: Vertical horizontal, oblique. Content: "....Perpendicular lines form right angles. ....the distance from a point to a line is the perpendicular from the point to the line..."	"Vocabulary" Series #365 A Curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-S.T.-1	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "Finger numerals; ancient roman numerals; modern roman numerals; the abacus; hindu numerals; place-value numerals; the numeral 10; from 99 to 100; the importance of "0"; digits; expanded notation - part 1; expanded notation - part 2..."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.
E-S.T.-1	FS	Drawing To Scale	Emphasis is drawing to scale in general, but does cover map scale conversions, etc.	"Mathematics" Series #A-64 Your Lesson Plan Filmstrips, Inc. Narrative on FS.
E-S.T.-2	TP	Measurement-Plane Figures	Each projectual can be used with the appropriate objective. Titles: "Area and square measure; perimeter; scale drawing."	Instructo Corporation No. 845-B Series of 3 transparencies, with individual sheets of descriptions, suggestions. (845-10 to 845-12)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
E-S.T.-2	FS	Scale Drawings And Tables	Latter part of FS (tables) not directly related, and may be omitted. Content: "This filmstrip shows how easily information can be obtained when it is put in the form of scale drawings, such as maps and blueprints; or in tables of various types."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400535 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
E-S.T.-3	TP	Graphs	Bar graphs, line graphs, and picto-graphs	Instructo Corporation No. 839-A Series of 3 transparencies, with individual sheets of descriptions, suggestions. (839-1 to 939-3)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-NUM-3	FS	Exploring Numbers	Covers "triangle numbers" "square numbers", "perfect numbers", prime numbers, and sequences. "Content: The numbers we use have many interesting properties. The study of these properties is part of a branch of mathematics known as the theory of numbers. In this filmstrip the children will discover some of the special properties of numbers and will have fun with numbers."	"New Horizons In Arithmetic" Series #116215 McGraw-Hill Text-Films Narrative on FS, but Filmstrip Guide gives frame-by-frame explanations, suggestions.
F-NUM-3	FS	Factors And Primes	FS has portions applicable to each of these three objectives; it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "...any no. can be expressed as a product of 2 or more nos. called factors....the commutative law of multiplication states that we can interchange factors without changing the product....the sieve of eratosthenes consists of the numerals 1 through 100 arranged in a manner that helps to determine and recall prime numbers..."	"Building Concepts in Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to Film of Same Name Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-NUM-3	F	Factors And Primes	Film has portions applicable to each of these 3 objectives; it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "....Uses the sieve of eratosthenes to develop the concept that natural nos. are either prime, or can be factored into prime nos.... a prime no. has no factors other than one and itself.... basic application of the use of prime nos. to the study of fractions....factor, commutative law, prime nos., and the sieve of eratosthenes..	"Building Concepts In Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to FS of same name 16MM-Narrative on soundtrack Teachers Guide gives description, suggestions.
F-NUM-3	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS series' of same name.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-NUM-3	FS	Fundamental Theorem Of Arithmetic	Subject matter appropriate for each of these objectives is covered in the FS. Content: "....Understanding of a set of factors of a number... deciding if one no. is a factor of another...explore sets of factors of different whole nos. and notice differences and similarities... the meaning of prime nos. and a test for prime nos...use the ideas of factors and prime nos. to develop an understanding of the fundamental theorem of arithmetic.... ....expressing whole nos. as a product of primes...."	#1240 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-PV-1	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "finger numerals; ancient roman numerals; modern roman numerals; the abacus; hindu numerals; place-value numerals; the numeral 10; from 99 to 100; the importance of "0"; digits; expanded notation - part 1; expanded notation - part 2...."	Series MT2 Colonial Films, Inc. Includes 12 taansparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-PV-2	FS	Exponents	With F-PV-2, the latter part of the FS may be too advanced and may be omitted; with G-NUM-8, the first part of the FS will be review material. Content: "....What exponents are, how to read them, and how to use them....the powers of 10 in our number system and in scientific notation."	Arithmetic Series Set 3 McGraw-Hill Text Films #400533
F-PV-3	TP	From Numbers To Numerals	Each projectual can be used with the appropriate objective. Titles: "finger numerals; ancient roman numerals; modern roman numerals; the abacus; hindu numerals; place-value numerals; the numeral 10; from 99 to 100; the importance of "0"; digits; expanded notation - part 1; expanded notation - part 2..."	Series MT2 Colonial Films, Inc. Includes 12 transparencies (MT2-1 to MT2-12), 40 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-1	FS	Multiplication And Division Of Whole Numbers	The part of the FS on division is really examined with respect to its relation to multiplication. Parts of the FS which are irrelevant to these objectives may be omitted. Content: "The commutative, associative, and closure properties, the role of 0 and 1; the distributive property; multiplication and division as inverse operations."	"Seeing the Use Of Numbers" Series (#162) Set V - Filmstrip C Eye Gate House, Inc. #162-C Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - book 5" (D.C. Heath and Co.).
F-MUL-2	FS	Multiplication And Division Of Whole Numbers	The part of the FS on division is really examined with respect to its relation to multiplication. Parts of the FS which are irrelevant to these objectives may be omitted. Content: "The commutative, associative, and closure properties, the role of 0 and 1; the distributive property; multiplication and division as inverse operations."	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip C Eye Gate House, Inc. #162-C Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.).

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-2	FS	The Associative Property Of Multiplication	When used with E-MUL-4, the latter part of the FS may either serve to preview later work or may be omitted; with F-MUL-2, some of the FS will be review. Content: "....Finding the product of 3 nos...we group these factors two at a time, using parentheses....may be grouped in 2 different ways, but product remains the same...this property known as associative property..... ....The associative property may make computation easier... we may use the property to regroup the factors...."	Set F-12: "Operations And Whole Numbers II" #1243 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-2	TP	From The Union Of Equivalent Sets To Multiplication Of Whole Numbers	Use each TP with appropriate objective. Content: "Shows sets as the union of equivalent sets and multiplication as repeated addition. Demonstrates basic multiplication table base ten and its use and points out that commutative property of multiplication cuts almost in half the number of multiplication facts that must be memorized. Introduces terms factor and product and shows simplest numeral for a number. Develops the commutative, associative, identity number, inverse operation and distributive properties of multiplication of whole numbers."	Series MT6 Colonial Films, Inc. Includes 16 transparencies (MT6-1 to MT6-16), 54 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-3	FS	Multiplication And Division Of Whole Numbers	The part of the FS on division is really examined with respect to its relation to multiplication. Parts of the FS which are irrelevant to these objectives may be omitted. Content: "The commutative, associative and closure properties, the role of 0 and 1; the distributive property; multiplication and division as inverse operations."	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip C Eye Gate House, Inc. #162-C Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.).
F-MUL-4	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objectives. Order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-4	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-5	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies, (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.
F-MUL-7	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objectives (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-7	FS	Decimal Fractions.... Multiplication		"Learning New Numbers.... Decimals" Series No. 6 Filmstrip House Narrative on FS
F-MUL-7	FS	Decimal Fractions	With the add, sub, and mult objectives, inappropriate portions of the FS may either be omitted, used as preview, or used as review; F-MUL-7 and F-MUL-8 can be covered simultaneously by this FS (which would then include a review of decimal addition and subtraction.) Content: "....seek rules for adding, subtracting, and multiplying decimal fractions and decimal mixed numbers."	"Kenner On Modern Mathematics - Number Bases And The Decimal System" Series - No. 4 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-8	FS	Decimal Fractions	With the add, sub, and mul objectives, inappropriate portions of the FS may either be omitted, used as preview, or used as review; F-MUL-7 and F-MUL-8 can be covered simultaneously by this FS (which would then include a review of decimal addition and subtraction.) Content: "....Seek rules for adding, subtracting, and multiplying decimal fractions and decimal mixed numbers."	"Kenner On Modern Mathematics - Number Bases And The Decimal System" Series - No. 4 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.
F-MUL-8	FS	Multiplying Decimals	Also covers "rounding off". Content: "....Multiplying tenths by tenths as common fractions and as decimal fractions.... multiplies hundredths by tenths and hundredths by hundredths. ....Product has the same number of decimal places as in the multiplier and multiplicand....to "round off" fractions of a cent and of a mile."	"Decimals And Percentage" Series #214 Curriculum Films Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-MUL-9	FS	Multiplication Of Decimals	Uses many word problems in teaching multiplication of decimals.	"Using And Understanding Numbers: Decimals And Measurements" Series A538-3 Society for Visual Education, Inc. (SVE) Narrative on FS.
F-MUL-10	FS	Multiplication Of Decimals	Uses many word problems in teaching multiplication of decimals..	"Using And Understanding Numbers: Decimals And Measurements" Series A538-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-DIV-2	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-DIV-2	FS	Two-Figure Divisors	"Objectives: To teach the child to estimate quotient figures. To show the effect of the ones figure of the divisor on the quotient. To show that the estimated quotient figure is not always correct, and to explain how to find the correct quotient figure."	"Adventures with Numbers" Series Popular Science Publishing Co., Inc. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.
F-DIV-3	FS	Two-Figure Divisors	"Objectives: To teach the child to estimate quotient figures. To show the effect of the ones figure of the divisor on the quotient. To show that the estimated quotient figure is not always correct, and to explain how to find the correct quotient figure."	"Adventures With Numbers" Series Popular Science Publishing Co., Inc. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-DIV-4	TP	From Operations On Numbers To Computation (Multiplication And Division)	Each projectual can be used with the appropriate objective. Content: "Shows computation (multiplication and division) utilizing place-value numeration base ten idea and symbolism. Points out how computation is made easier when one involved multiplication is replaced by 2 simple multiplications. Illustrates variations of the multiplication algorism. Demonstrates estimating products by computing lower and upper limits of the product. Develops division using ten as the key to easy computation and the place-value algorism for division."	Series MT8 Colonial Films, Inc. Includes 20 transparencies (MT8-1 to MT8-20), 67 overlays, and a Teachers Guide for each transparency.
F-DIV-4	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-DIV-7	FS	Decimal Fractions....Division	Part of FS covers problems with a decimal number divided into a whole number; it is in the second half of the FS, and may be omitted if too difficult.	"Learning New Numbers.... Decimals" Series No. 7 Filmstrip House Narrative on FS
F-DIV-7	FS	Dividing With Decimals	With F-DIV-7, the first part of the FS is directly applicable, while the rest can either serve as introductory to G-DIV-4 or may be omitted; with G-DIV-4, the first part of the FS can serve as review material. "Objectives: To teach the child how to divide a decimal by a whole no; to prove that a quotient is unchanged when both divisor & dividend is multiplied by by the same no. (thus the importance of moving decimal pts. when dividing); to show that the divisor can be changed to a whole no. by multiplying by 10 or 100 or 1,000 (also multiplying the dividend), and how to do so by moving the decimal pt. to the right; to help the child master some zero difficulties."	"Adventures With Numbers" SEries Popular Science Publishing Co., Inc. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-COP-2	FS	Extending Division And Multiplication Of Decimal Fractions		"Learning New Numbers.... Decimals" Series No. 8 Filmstrip House Narrative on FS
F-COP-2	FS	Multiplication And Division	Covers: "multiplication, division, checking, short cuts, and nomenclature."	"Light On Mathematics - Refresher Course" Kit 1 - film 3 The Jam Handy Organization Narrative on FS
F-COP-2	FS	Zero - The Forgotten Number	Not directly related to this objective, but an appropriate spot for it. This FS examines typical multiplication and division examples involving zero, and the various functions of zero.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-I Narrative on FS; Teachers Manual gives suggestions.
F-COP-4	FS	Diagrams Help Solve Problems	Content: ".....A diagrammatic approach to the solution of several representative problems...."	Set F-15: "Problem Solving" #1245 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-COP-4	FS	Estimating Answers, Interpreting Answers	FS covers a problem-solving aid or technique Content: "Helps in estimating answers; the importance of knowing what an answer tells; practice in estimating and interpreting answers."	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip F Eye Gate House, Inc. #162-F Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.).
F-COP-4	FS	Solving Problems	General approach to solving word problems; use at appropriate level in terms of difficulty of specific arithmetic operations within the problems. "Content: The presentation of problem solving in this filmstrip emphasizes the understanding of the nature of a problem, seeing the action in the problem, translating the action into mathematical sentences, and finding several ways to solve the problem."	Modern Arithmetic Series -- Grades 5 & 6. McGraw-Hill, Inc. #043119 Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-COP-4	FS	Talking About Parts	FS is a review of various subjects included in problems in this objective. Content: "Meaning of half, third, and fourth; these fractions applied to measures where this is common practice. The measures included are inches, feet, yards, cups, pints, quarts, gallons, teaspoons, tablespoons, seconds, minutes, hours, days, weeks, months, years, degrees of temperature, ounces, pounds, tons. Comparisons of fractions and measures; no written computation."	"Seeing The Use Of Numbers" Series (#133) Set IV - Filmstrip B Eye Gate House, Inc. #133-B Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 4" (D.C. Heath And Co.).
F-FRAC-1	FS	Mixed Numbers	Content: "...What a mixed number is... the equivalence between mixed numbers and their improper fractions....changing mixed numbers into improper fractions."	"Fractions" Series #207 Curriculum Films Narrative on FS
F-FRAC-1	FS	The Meaning Of Fractions	The first part is a review of basic fractions.	Arithmetic Series - set No. 2 #400322 McGraw-Hill Book Co. Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-1	FS	The Language Of Fractions	Besides this objective, it will serve to review proper fractions, like and unlike fractions, and equivalent fractions. Content: "The words we use when we talk about fractions, and the meanings these words commonly have: proper fraction, improper fraction, mixed number, like and unlike fractions, equivalent fractions....changing improper fractions into mixed numbers and vice versa."	"Understanding Fractions" Series A530-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-FRAC-1	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS series' of same name.
F-FRAC-1	FS	Adding Like Fractions And Mixed Numbers	If used with E-FRAC-6, FS will serve also to introduce F-FRAC-1; if used with F-FRAC-1, FS will serve also to review E-FRAC-6.	Fraction Series A535-3 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-1	FS	Using Mixed Numbers	Content: "....A mixed number is used to show some whole number plus some part of a number.... the equivalence of a mixed number and an improper fraction to express the same fractional concept is presented..... changing improper fractions to mixed numbers."	"Fractions" Series #208 Curriculum Films Narrative on FS
F-FRAC-2	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS series' of same name.
F-FRAC-2	F	How To Add Fractions	With E-FRAC-6, latter portion will serve to introduce addition of fractions with unlike denominators; with F-FRAC-2, most of film will serve to review addition of fractions with common denominators. Content: "Designed to assist the class in visualizing the process of addition as applied to common fractions."	"Elementary General Math" Series #3012 Modern Learning Aids (MLA) 16MM - Narrative on Soundtrack Explanations, suggestions on Teachers Guide inside film container.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-2	F	How To Subtract Fractions	With E-FRAC-6, latter portion will serve to introduce subtraction of fractions with unlike denominators; with F-FRAC-2, most of film will serve to review subtraction of fractions with common denominators. Content: "Reviews the process of subtraction and shows how the process is applied to fractions, having a common denominator."	"Elementary General Math" Series #3013 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack explanations, suggestions on Teachers Guide inside film container.
F-FRAC-2	FS	Common Denominators	Content: "....The need for finding a common denominator to add or subtract two fractions with different denominators.....finding a common denominator that is different from any denominator of fractions to be added or subtracted."	"Fractions" Series #206 Curriculum Films Narrative on FS.
F-FRAC-2	F	How To Multiply Fractions	Content: "Visualizes the process of multiplication as applied to whole numbers and extends the logic to the multiplication of fractions."	"Elementary General Math" Series #3015 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-2	FL	Fractions	"Purposes: To explain that the property of 1 can be used to write equivalent fractions. To show that only like fractions can be added or subtracted."	Elementary Mathematics Series Regular 8MM Film Loop No. P-80075 Encyclopaedia Britannica Educational Corp. No. 20075 (Silent); description, suggestions attached
F-FRAC-2	FS	Multiplication With Fractions	Considers only problems dealing with multiplication of whole no. by a fraction. Content: "...A fractional no. may be renamed as a product of a whole no. and a unit fractional no.....associative property of multiplication introduced...the use of the assoc. property and the products of whole nos. and fractional nos....a fast way of finding the product of a whole no. and a fractional no....."	Set F-4: "Operations And Fractions 1" #1215 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-2	FS	Multiplying Fractions	Content: "....Multiplying a whole number by a fraction.... ....multiplying a fraction by a whole number... ....'1/2 times' anything is the same as '1/2 of' anything."	"Fractions" Series #209 Curriculum Films Narrative on FS
F-FRAC-3	FS	Factors And Primes	Specific parts of the FS, if felt to be unrelated to whichever of the objectives with which it is being used, may be omitted. The FS first reviews Factors. Content: "This filmstrip explains what factors are, how to find them, and how to use common factors to reduce fractions. It also discusses prime and composite numbers."	Arithmetic Series Set 3 McGraw-Hill Text Films #400534 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
F-FRAC-3	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals.) Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-3	FS	Finding Simplest Fractional Names - Factoring	Content: "....Reviews the meaning of factor and develops a systematic approach to finding the greatest common factor of a pair of numbers....equivalent fractional numerals name the same number...the simplest name for any fractional no. is one in which the numerator and denominator have the greatest common factor, 1...."	Set F-13: "Operations and Fractions II" #1241 Popular Science Publishing Co., Inc. Narrative on FS; TEaching Guide gives frame-by-frame description, suggestions.
F-FRAC-4	FS	Set Approach To L.C.D.	Addition of unlike-denom. fractions; FS describes one technique for solving these problems. Content: "....Reviews addition of fractional nos. with a common denominator...find a common denominator to add fractional nos. without common denominators..... equivalent fractions....sets of denominators are examined and from these sets a set of common denominators is built up....select from this set the least common denominator.... L.C.D. then used for addition..	Set F-13: "Operations And Fractions II" #1223 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-5	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); Related to film and FS Series of same name.
F-FRAC-5	FS	Set Approach To L.C.D.	Addition of unlike-denom. fractions; FS describes one technique for solving these problems. Content: "....Reviews addition of fractional nos. with a common denominator....find a common denominator to add fractional nos. without common denominators....equivalent fractions... sets of denominators are examined and from these sets a set of common denominators is built up....select from this set the least common denominator...L.C.D. then used for addition...."	Set F-13: "Operations and Fractions II" #1223 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-FRAC-5	FS	Adding Fractions	Part 1 is review, and part 2 for this objective. Content: "....Objects can be added only if they are the same kinds of objects. Therefore, two fractions with different denominators cannot be added. First step is to change one denominator to agree with a second one...."	"Fractions" Series #205 Curriculum Films, Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-5	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objectives. (Order corresponds to that of projectuals.) Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
F-FRAC-5	FS	Some Sums	Appropriate subject matter, but rather simple treatment.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-D Narrative on FS; Teachers Manual gives suggestions.
F-FRAC-6	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS Series of same name.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-6	FS	Adding Unlike Fractions And Mixed Numbers	Contains F-FRAC-5 review material	Fraction Series A535-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-FRAC-6	FS	Addition And Subtraction Of Fractions	FS first reviews several fractions concepts. Content: "Review of vocabulary; inductive development of the rules for adding and subtracting fractions (the rules are never mentioned, since there is really no need for them); some discussion of commutativity; practice in adding and subtracting fractions and expressing answers in lowest terms."	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip I Eye Gate House, Inc. #162 - I Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.)
F-FRAC-6	FS	Subtracting Unlike Fractions And Mixed Numbers		Fraction Series A535-6 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-6	FS	Addition And Subtraction Of Fractions	With F-FRAC-6, end of FS may either be omitted or serve as introduction to future work; With F-FRAC-8, beginning of FS will be review in nature. Contents: common denominators least common denominators mixed numbers anticipation of result	"Light on Mathematics - Refresher course" Kit 1 - film 5 The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-7	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); Related to film and FS Series' of same name
F-FRAC-8	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); Related to film and FS Series' of same name
F-FRAC-8	FS	Subtracting Unlike Fractions And Mixed Numbers		Fraction Series A535-6 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-FRAC-8	FS	Addition And Subtraction Of Fractions	With F-FRAC-6, end of FS may either be omitted or serve as introduction to future work; with F-FRAC-8, beginning of FS will be review in nature. Contents: Common denominators Least common denominators Mixed numbers Anticipation of result	"Light on Mathematics - Refresher Course' Kit 1 - film 5 The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-8	FS	Adding Unlike Fractions And Mixed Numbers	Contains F-FRAC-5 review material.	Fraction Series A535-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-FRAC-8	FS	Addition And Subtraction Of Fractions	FS first reviews simpler problems in addition and subtraction of fractions. Content: "Addition of like fractions and like mixed fractions... addition of unlike fractions and unlike mixed fractions.... subtraction of like fractions and like mixed fractions.... subtraction of unlike fractions and unlike mixed fractions... vertical and horizontal addition and subtraction of fractions and mixed fractions.. associative principle in regrouping of mixed fractions.. equivalent fractions - renaming fractions. Comparison of fractional parts of a whole..."	"Using Modern Mathematics - Group 5" Series A532-13 Society For Visual Education, Inc, (SVE) Narrative on FS.
F-FRAC-8	FS	Addition Of Fractions	Covers the addition of like fractions, unlike fractions and mixed numbers.	"Understanding Fractions" Series A530-5 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-8	FS	Different Differences	Appropriate subject matter, but rather simple treatment.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-E Narrative on FS; Teachers Manual gives suggestions.
F-FRAC-8	FS	Estimating Sums: Fractions	In essence, FS describes method of deciding if a computed sum is reasonable. Content: "....An estimate may be made in terms of 2 nos. - an upper and lower bound...estimate sums of fractional nos. greater than one...no. lines used to find 2 consecutive whole nos. between which fractional no. falls...once estimate has been made, one can decide if a computed sum is reasonable...."	Set F-13: "Operations and Fractions II" #1224 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-FRAC-8	FS	Subtraction Of Fractions	Covers the subtraction of like and unlike fractions, and mixed numbers; also the transformation necessary when the top fraction is smaller than the bottom.	"Understanding Fractions" Series A530-6 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-8	F	Subtracting Fractions	Content: "....We can add and subtract only like things....similarly we can subtract fractions with like denominators....methods of changing the terms of fractions....regrouping of fractions....subtraction of like fractions, unlike fractions, and mixed nos.... everyday activities where subtracting fractions is useful...."	"Building Concepts In Mathematics" Series 5217-#4 John Colburn Associates, Inc. Related to FS of same name. 16MM - Narrative on soundtrack Teachers Guide gives description, suggestions.
F-FRAC-8	FS	Subtracting Fractions	Content: "....We subtract only numerators...denominators are the names of the fractions... we must have a common denominator ...we can subtract only like things....regrouping will help us subtract mixed numbers....."	"Building Concepts in Mathematics" Series 5217-#4 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.
F-FRAC-13	IP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); related to film and FS Series' of same name.

Objectives	Aid	Title	Content	Source
F-FRAC-13	FS	Fractions In Multiplication	First part of FS applies to F-FRAC-13, second part to F-FRAC-14; may omit inappropriate section in each case. Content: "Fractions in multiplication algorithms; applications in problem solving; estimating answers; interpreting answers."	"Seeing The Use Of Numbers" Series (#174) Set VI - Filmstrip H Eye Gate House, Inc. #174 - H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions.
F-FRAC-13	FS	Multiplication And Division Of Fractions	With F-FRAC-13, FS may also be used to preview division; with G-FRAC-3, the FS first reviews multiplication. Division and multiplication are shown in their close relation and similarity.	"Light On Mathemaitcs - Refresher Course" Kit 1 - film 6 The Jam Handy Organization Narrative on FS.
F-FRAC-13	FS	Multiplication of Fractions	Some of the FS may be irrelevant and may be omitted. Content: "Multiplying a unit fraction and a non-unit fraction by 1 (identity principle).... multiplying a unit fraction and a non-unit fraction by nos. other than 1....multiplying a mixed fraction by a whole no....the distributive property....multiplying a unit fraction by a unit fraction; and a non-unit fraction by a non-unit fraction ....multplying a mixed fraction by a mixed fraction... finding fractional parts of sets...."	"Using Modern Mathematics - Group 5" Series A532-14 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-13	FS	Multiplying Fractions	Most of the FS covers review material which leads up to this objective; FS might be best used as an introduction to this objective. Content: ".....Arithmetical method for multiplying the following: Fractions and whole nos., fractions and fractions, mixed nos....we multiply numerators together to get the numerator product, and then we multiply the denominators together to get the donominator product... mixed nos. must be changed to improper fractions before multiplying....."	"Biilding Concepts In Mathematics" Series 5217-#5 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.
F-FRAC-13	F	Multiplying Fractions	Most of film is review material which leads up to this objective; it might be best used as an introduction to this objective. Content: "....Why it is helpful to know how to multiply fractions.... multiplication concepts.... the commutative law of multiplication applied to fractions. multiplying fractions and mixed nos....division by a common factor as a shortcut in computation....computation development...live scenes applying multiplication concepts....."	"Building Concepts In Mathematics" Series 5217-#5 John Colburn Associates, Inc. Related to FS of same name. 16MM - Narrative on Soundtrack Teachers Guide gives description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-13	FS	Multiplying Fractions And Mixed Numbers		Fraction Series A535-7 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-FRAC-13	FS	Pleasing Products	Appropriate subject matter but rather simple treatment.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-F Narrative on FS; Teachers Manual gives suggestions
F-FRAC-14	FS	Fractions In Multiplication	First part of FS applies to F-FRAC-13, second part to F-FRAC-14; may omit inappropriate section in each case. Content: "Fractions in multiplication algorithms; applications in problem solving; estimating answers; interpreting answers."	"Seeing The Use Of Numbers" Series (#174) Set VI - Filmstrip H Eye Gate House, Inc. #174-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-FRAC-14	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). (order corresponds to that of projectuals. Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
F-TIME-4	FS	Advanced Study Of Time	Reviews other aspects of time in leading up to the material for this objective.	"Development of Number Concepts" Series #639 Curriculum Films Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-SOM-1	TP	About Measurement	A few transparencies are review and a few are somewhat beyond the scope of this objective; thus some of the transparencies may be used with other objectives. Content: "...What is measurement?... why is measurement important?.. historically...uniform standards...the "metric" and "English" system...advantages of metric system..."powers" of ten..prefixes...to change units.."calibrated" measuring instruments....uncertainty... "significant figures".... "scientific notation"..... "dimensional analysis"....."	Channing L. Bete Co., Inc. Cat. #426 Contains 15 transparencies and a Teacher's Supplementary Booklet, all in a notebook.
F-SOM-2	FS	The Story Of Linear Measure	Historical overview, rather than practical instruction. Content: "Early measures of length not only were crude and inaccurate, but they varied from place to place. This lack of uniformity led to confusion....is the story of the struggle to achieve uniformity or standardization in measures of length."	New Horizons in Arithmetic Series #116216 McGraw-Hill Text - Films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-1	FS	Geometric Figures And Their Measures	General overview, with first 2 parts of FS review and 3rd part introductory. Content: "....To instill the idea of geometric figures as sets of points. The fact that the objects and figures shown are only representatives of these sets of points is reinforced at various stages through out the filmstrip. The characteristics of the basic geometric figures are discussed, as are methods of measuring these figures."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400536 Narrative on FS; Filmstrip Guide gives frame-by-frame, explanations, suggestions.
F-GEOM-1	TP	Measurement - Plane Figures	Each projectual can be used with the appropriate objective. Titles: "Area and square measure; perimeter; scale drawing."	Instructo Corporation No. 845-B Series of 3 transparencies, with individual sheets of descriptions, suggestions. (845-10 to 845-12)
F-GEOM-1	FS	Perimeters And Areas	FS first reviews much of geometry up to this point. Content: "Certain essential vocabulary-line, segment, polygon, quadrilateral, rectangle, square, parallelogram, triangle, region, perimeter, area; practice in computing perimeters and areas; the idea that neither of these	"Seeing The Use Of Numbers" Series (#162) Set V - Filmstrip H Eye Gate House, Inc. #162-H Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions. Correlated with "Learning To Use Arithmetic - Book 5" (D.C. Heath And Co.)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-2	FS	Experimenting with Area	Content: "...Reviews some of the standard units of measure with which the pupil is familiar...none of these is appropriate for measuring surface...various units of surface are tried and area is defined...the square unit is introduced as the standard unit of area...the areas of various figures are found by counting square units... figures may have the same area even though they have different perimeters and different shapes...."	#1219 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-GEOM-2	FS	History Of Area Measures	Historical introduction to area	History of Measure Series #400137 McGraw-Hill Book Co. Narrative on FS.
F-GEOM-2	FS	Rectangles And Squares	FS does not deal with area, but provides a comprehensive introduction to this objective at this level as it reviews rectangles and squares in general.	"The Nature Of Geometry" Series No. 4 Filmstrip House Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-2	FS	Perimeters And Areas	FS first reviews much of Geometry up to this point. Content: "Certain essential vocabulary-line, segment, polygon, quadrilateral, rectangle, square, parallelogram, triangle, region, perimeter, area; practice in computing perimeters and areas; the idea that neither of these determines the other."	"Seeing The Use Of Numbera" Series (#162) Set V - Filmstrip H Eye Gate House, Inc. #162-H Narrative on FS; Teachers Guide gives frame-by-frame description, suggestions. Correlated with "Learning To Use ARithmetic - book 5" (D.C. Heath And Co.).
F-GEOM-2	TP	Measurement - Plane Figures	Each projectual can be used with the appropriate objective. Titles: "Area and square measure; perimeter; scale drawing."	Instructo Corporation No. 845-B Series of 3 transparencies, with individual sheets of descriptions , suggestions. (845-10 to 845-12)
F-GEOM-2	FS	Areas	Part of the FS may be too advanced and can be omitted. Covers: "What area means, where areas are used, and how to find the areas of simple geometric figures."	Plane Geometry Series A541-8 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-2	FS	The Meaning Of Area	Part of the FS at the end may be too difficult (area of a triangle, etc.), and may be omitted. Content: "Flat surface shapes," introduction to area, conversion of square units, and "area of a right-angle triangle (advanced)."	"A 5, 6 Arithmetic Experience" SEries #A-48 Your Lesson Plan Filmstrips Narrative on FS.
F-GEOM-3	FS	The Meaning Of Area	Part of the FS at the end may be too difficult (area of a triangle, etc.), and may be omitted. Content: "Flat surface shapes," introduction to area, conversion of square units, and "area of a right-angle triangle (advanced)."	"A 5, 6 Arithmetic Experience" Series #A-48 Your Lesson Plan Filmstrips Narrative on FS.
F-GEOM-4	FS	History Of Weight And Volume Measures	Historical Overview	History Of Measure Series #400140 McGraw-Hill Book Co. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-5	FS	Geometric Figures	When used for D-GEOM-3, the section on plane figures may serve as introductory or be omitted; for F-GEOM-5, the section on solids may serve as review.	"Man And Measures" Series Filmstrip House Narrative on FS.
F-GEOM-5	FS	Vocabulary: Polygons	For either objective, certain parts of the FS may not apply, and can be omitted.	"Vocabulary" Series #6 A Curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.
F-GEOM-6	FS	Experimenting With The Circle	With E-GEOM-5, some of the FS will either preview later concepts or may be omitted; with F-GEOM-6, some of the FS will review previous work. Content: "....The idea of a circle as a special set of points.... three methods of constructing circles are explored...construct a circle with a given radius...the meaning of a chord and the special chord - the diameter...the relation of the length of a radius and the length of a diameter of the same circle...."	#1216 Popular Science Pulbishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

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Objectives	Aid	Title	Content	Source
F-GEOM-6	FS	Circles	When used with E-GEOM-5, part of the FS may be too advanced, and may either be omitted or used as introductory material; with F-GEOM-6, the FS will also serve to review drawing a circle with a compass.	"The Nature Of Geometry" Series - No. 2 Filmstrip House Narrative on FS.
F-GEOM-6	FS	Introduction To Circles	Covers: "What a circle is, where objects representing circles are used, what lines are related to the circle."	Plane Geometry Series A541-10 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-GEOM-6	FS	Vocabulary: Circles - I		"Vocabulary" Series A Curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.
F-GEOM-7	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). (order corresponds to that of projectuals.) Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-7	TP	Sets Of Points	Each projectual can be used with the appropriate objective. Titles: "Comparing line segments; congruent line segments; measuring line segments; lines and rays; units of measure; using standard units of length; rays and angles; triangles."	"Elementary School Math - Second Grade" Series #511.CC-SS Creative Visuals Series of 8 transparencies (511.CC-21 to 511.CC-33).
F-GEOM-7	FS	Angles And Triangles	Subject matter appropriate for each of these objectives is covered in the FS as well as some review material (and some irrelevant frames). Content: "...The idea of a line and of a ray...the distinction between line and ray...the idea of angle is developed...the meaning of sides and vertex of an angle...how to name name angles...a triangle is a rigid figure...the meaning of a triangle...the angles of a triangle...."	#1227 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-GEOM-10	FS	Angles And Triangles	Subject matter appropriate for each of these objectives is covered in the FS, as well as some review material (and some irrelevant frames). Content: "...The idea of a line and of a ray...the distinction between line and ray...the idea of angle is developed...the meaning of sides and vertex of an angle...how to name angles...a triangle is a rigid figure...the meaning of a triangle...the angles of a triangle...."	#1227 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-GEOM-10	FS	Modern Mathematics: Geometry - Sets, Rays, Angles, Figures	The FS includes much more than just the material of this specific objective; but this is appropriate point for a review of many geometry concepts (line segments, rays and angles, open and closed curves, etc.). Content: "....Sets of pts. as line segments and lines...rays and angles...simple and not simple paths, or ways... closed curves and closed figures....open curves and open figures...symbol, l, for angle....recognition of the following polygons: Triangles, quadrilaterals, and trapezoids...."	"Using Modern Mathematics Group 4" Series A532-4 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-1	FS	Ways Of Looking At Percent	There are portions of the FS appropriate for each of these objectives. Content: "....Ratio...pairs of sets which are disjoint (no elements in common)...every ratio may be named in many ways... introduces percent and the symbol % as a way of naming ratios...naming ratios as percents...interpret statements which contain percents... other names for percents.... how to name a ratio as a percent...."	#1209 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

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AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-1	FS	Ratios And Proportions	Parts may be too difficult (inverse proportions, etc.), and thus can be omitted. Covers: "common comparisons, order of comparisons kinds of proportion, the magic three, direct proportions, inverse proportions, compound proportions."	"Light on Mathematics - Refresher Course" Kit III - film 2 The Jam Handy Organization Narrative on FS.
F-S.T.-2	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objectives. (Order corresponds to that of projectuals.) Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-2	FS	Ways Of Looking At Percent	There are portions of the FS appropriate for each of these objectives. Content: "....Ratio...pairs of sets which are disjoint (no elements in common)...every ratio may be named in many ways...introduces percent and the symbol % as a way of naming ratios...naming ratios as percents...interpret statements which contain percents...other names for percents...how to name a ratio as a percent..."	#1209 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
F-S.T.-2	FS	Introduction To Percentage	Content: "...Introduces the word "percent," and the symbol "%", as encountered in everyday life...percentage means hundredths; hundredths, tenths, and thousandths can be expressed as percent; common fractions can be changed to decimals and percent; 100% of the class, 100% American."	"Decimals And Percentage" Series #216 Curriculum Films Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-2	FS	Fractions, Decimals And Percentage	When used for this objective, FS reviews decimals & fractions first. Covers: "Definition of fractions and decimals, conversion of fractions and decimals, mixed and improper fractions, and percentage."	"Light On Mathematics - Refresher Course" Kit 1 - Film 4 The Jam Handy Organization Narrative on FS.
F-S.T.-2	F	Percentage	Content: "Visualizes the process of changing common and decimal fractions to percentage and illustrates it with examples."	"Elementary General Math" Series #3018 Modern Learning Aids (MLA) 16MM - Narrative on Soundtrack
F-S.T.-5	FS	Bar Graphs		"Graphs" Series #A-37 Morehouse Associates, Inc. Narrative on FS.
F-S.T.-5	FS	Circle Graphs		"Graphs" Series #A-39 Morehouse Associates, Inc. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-5	FS	Graphs - Pictographs, Bar, Line, Number, Pairs, Maps	First half of FS applies to F-S.T.-5; second half to G-S.T.-1 in each case, the inappropriate section may either be omitted or used as review or preview. Content: "Graphs: Pictograph, bar, line, number pairs, maps.... arranging data on a picture graph....developing horizontal and vertical (column) graphs....organizing and arranging data on a line segment graph...graphing nos. on a line...graphing no. pairs...locating places on a map (graph)....."	"Using Modern Mathematics - Group 5" Series A532-11 Society For Visual Education, Inc. (SVE) Narrative on FS.
F-S.T.-5	FS	Line Graphs		"Graphs" Series Morehouse Associates, Inc. Narrative on FS.
F-S.T.-5	FS	Making Line Graphs	Content: "A new problem in picturing number facts: How number facts change over a period of time....how line graphs are developed, and how to read the kinds of information they present."	Your Lesson Plan Filmstrips #A-159 Y.L.P. Materials Corporation Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-5	FS	How We Use Graphs	Covers: Use of graphs in general, and "the four basic kinds of graphs: pictographs for counting bar graphs for comparing line graphs for trends circle graphs for relationships."	Your Lesson Plan Filmstrips #A-161 Y.L.P. Materials Corporation Narrative on FS.
F-S.T.-5	FS	Making A Bar Graph	Content: "Bars meet the need for picturing number information more accurately..... how bar graphs are made, learning the reason for each step."	Your Lesson Plan Filmstrips #A-158 Y.L.P. Materials Corporation Narrative on FS.
F-S.T.-5	FS	Making A Circle Graph	Content: "The circle graph meets the need to compare number facts in a special way - to show how they are parts of a whole amount. ....How circle graphs are made, and types of number facts that can be pictured best by circle graphs."	Your Lesson Plan Filmstrips #A-160 Y.L.P. Materials Corporation Narrative on FS.
F-S.T.-5	FS	Visualizing Number Facts - Pictographs		"Graphs" Series #578 A Curriculum Filmstrip Narrative on FS.

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AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
F-S.T.-5	FS	What Is A Graph? (Pictographs)	Content: "What purpose does a graph serve? Picturing number facts helps us understand the meaning behind numbers..... How pictographs are made, how they are used, what they can do, and what they can't do."	Your Lesson Plan Filmstrips #A-157 Y.L.P. Materials Corporation Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-1	F	Factors And Primes	Film has portions applicable to each of these 3 objectives: it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "...Uses the sieve of eratosthenes to develop the concept that natural nos. are either prime, or can be factored into prime nos....a prime no. has no factors other than one and itself...basic application of the use of prime nos. to the study of fractions....factor, commutative law, prime nos., and the sieve of eratosthenes.."	"Building Concepts In Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to FS of same name 16MM - Narrative on soundtrack Teachers Guide gives description, suggestions.
G-NUM-1	FS	Factors And Primes	FS has portions applicable to each of these three objectives; it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "....Any no. can be expressed as a product of 2 or more nos. called factors...the commutative law of multiplication states that we can interchange factors without changing the product...the sieve of eratosthenes consists of the numerals 1 through 100 arranged in a manner that helps to determine and recall prime numbers...."	"Building Concepts In Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-1	FS	Fundamental Theorem Of Arithmetic	Subject matter appropriate for each of these objectives is covered in the FS. Content: "...Understanding of a set of factors of a number...deciding if one no. is a factor of another...explore sets of factors of different whole nos. and notice differences and similarities...the meaning of prime nos. and a test for prime nos....use the ideas of factors and prime nos. to develop an understanding of the fundamental theorem of arithmetic...expressing whole nos. as a product of primes..."	#1240 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
G-NUM-1	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-2	FS	Factors And Primes	FS has portions applicable to each of these three objectives; it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "...Any no. can be expressed as a product of 2 or more nos. called factors....the commutative law of multiplication states that we can interchange factors without changing the product....the sieve of eratosthenes consists of the numerals 1 through 100 arranged in a manner that helps to determine and recall prime numbers...."	"Building Concepts In Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to film of same name Narrative on FS.
G-NUM-2	FS	Fundamental Theorem Of Arithmetic	Subject matter appropriate for each of these objectives is covered in the FS. Content: "...Understanding of a set of factors of a number...deciding if one no. is a factor of another...explore sets of factors of different whole nos. and notice differences and similarities...the meaning of prime nos. and a test for prime nos....use the ideas of factors and prime nos. to develop an understanding of the fundamental theorem of arithmetic...expressing whole nos. as a product of primes."	#1240 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-2	F	Factors And Primes	Film has portions applicable to each of these 3 objectives; it also reviews "factor-product" terminology and the commutative law of multiplication. Content: "...Uses the sieve of eratosthenes to develop the concept that natural nos. are either prime, or can be factored into prime nos...a prime no. has no factors other than one and itself...basic application of the use of prime nos. to the study of fractions...factor, commutative law, prime nos., and the sieve of eratosthenes...."	"Building Concepts In Mathematics" Series 5217-#2 John Colburn Associates, Inc. Related to FS of same name 16MM - Narrative on soundtrack. Teachers Guide gives description, suggestions.
G-NUM-2	FS	Factors And Primes	Specific parts of the FS, if felt to be unrelated to whichever of the objectives with which it is being used, may be omitted. The FS first reviews factors. Content: "This filmstrip explains what factors are, how to find them, and how to use common factors to reduce fractions. It also discusses prime and composite numbers."	Arithmetic Series Set 3 McGraw-Hill Text-Films #400534 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-3	FS	Numeration - Base Five	FS can be used for all 3 objectives. Content: "Using digits in base five numeration...place-holders in base five numeration...place-value charts; use of the abacus....relationships between base five and base ten...."	"Using Modern Mathematics - Group 5" Series A532-16 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-NUM-3	FS	Numeration - Base Six	FS is related to both these objectives in technique, but on base six (rather than five). Content: "Using digits in base six numeration...place-holders in base six numeration...relationships between base six and base ten....."	"Using Modern Mathematics - Group 6" Series A532-21 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-NUM-3	FS	Numeration - Binary (Base Two)	FS is ralated to both these objectives in technique, but on base two (rather than five). Content: "Using digits in binary (base two) numeration...placeholders in binary (base two) numeration relationships between base two and base ten..."	"Using Modern Mathematics - Group 6" Series A532-23 Society For Visual Education, Inc. (SVE) Narrative on FS.

Objectives	Aid	Title	Content	Source
G-NUM-3	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals). Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
G-NUM-3	FL	Counting	Introduces concept of base (uses base 6)"purposes:" "To show that an early method for counting was by matching sets, rather than by assigning values within a system of numeration. To introduce the idea of base."	Elementary Mathematics Series No.R-80087 Regular 8MM Film Loop No. R-80087 Encyclopaedia Britannica Educational Corp. No. 20087 (silent); description, suggestions attached.
G-NUM-3	TP	Modern Math: Hard Spots, Grade 3	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals.) Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-3	TP	From Base Ten To Other Bases	Each projectual can be used with the appropriate objective. Content: "Shows that when a numeral in a base other than ten is to be changed to a base ten numeral, the result is obtained as the sum of products of powers of the base number... transformations from base ten numerals to numerals in other bases....using base ten as an intermediate base in transforming a numeral from a base which is not ten to a different base which is not ten either..."	Series MT4 Colonial Films, Inc. Includes 12 transparencies (MT4-1 to MT4-12), 40 overlays, and a Teachers Guide for each transparency.
G-NUM-3	TP	From Other Bases To Base Ten	Each projectual can be used with the appropriate objective. Content: "Shows grouping of the elements of a set into subsets arriving at numerals naming the number of the set in bases three through nine, and twelve.... illustrates transformation of numerals in these bases to equivalent base ten numerals.."	Series MT3 Colonial Films, Inc. Includes 12 transparencies (MT3-1 to MT3-12), 41 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-3	TP	About Numeration Systems	Several transparencies are review in nature; and may thus be used with previous objectives also. Content: "..."Systems of numeration".... "number", "numeral," "digit"... "one-to-one correspondence".... Egyptian symbols"...Roman numerals"..."subtraction principle"...how to build a "base five" system..need for zero in a base five system... larger groupings in base five system.."Hindu Arabic" system...standard and expanded forms...changing base ten to base five...changing base five to base ten...why is place value important?....	Channing L. Bete Co., Inc. Cat. #704 Contains 15 transparencies and a teachers supplementary booklet, all in a notebook.
G-NUM-3	FS	Discovering Number Bases	Content: "An abacus with the spikes labelled feet or yards, or pints and quarts, can be useful in developing the idea of number bases different from the base ten...understanding of the decimal system is developed by working with number bases other than base ten..."	"Kenner On Modern Mathematics - Number Bases And The Decimal System" Series - No.1 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-3	FS	One Hand Arithmetic -- Base Five	Content: "....The difference between number and symbols for numbers...idea of place value... the meaning of base ten as objects are grouped by tens and ten tens....how numerals are written in expanded form....discover, through grouping by fives, how a base five system might be developed...the differences and similarities between a base five system and a base ten system..."	Set F-2: "Names for Numbers" #1207 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.
G-NUM-3	FL	System Of Two's	Base two. "Purposes: To reinforce the idea that a system of numeration can be considered simply as a way of grouping objects. To demonstrate the use of a place-value chart in the system of base two. To show that the value of each position in the chart is a power of two: 2, 4, 8, 16, etc. To provide a tool for (a) reviewing the characteristics of the binary ststem, and (b) converting from base ten to base two."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80085 Encyclopaedia Britannica Educational Corp. No. 20085 (Silent); Description, suggestions attached

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-3	FS	Systems Of Numeration	Shows relationship of base five to base 10; and gives sample problems. "Content: This filmstrip begins with a brief introduction to systems of numeration which existed before the hindu-arabic system. It traces the development of the hindu-arabic system and analyzes the advantages of this system over the earlier ones. It provides further understanding of the concept of numeration system through a comparison of the decimal system with the base five system."	Modern Arithmetic - Series - Grade 5 & 6 McGraw-Hill, Inc. #043118 Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.
G-NUM-3	FS	Understanding Number Bases	Content: "This filmstrip develops the meaning of the base concept in number systems and shows that a number system can use any number as a base (except number one). The principles that underlie our number system (the use of different digits, the zero, and place value) are not peculiar to the base ten system. The bases discussed in this filmstrip are ten, five, two, and twelve."	"New Horizons In Arithmetic" Series #116214 McGraw-Hill Text-Films Narrative on FS, But Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-4	IP	From Base Ten To Other Bases	EAch projectual can be used with the appropriate objective Content: "Shows that when a numeral in a base other than ten is to be changed to a base ten numeral, the result is obtained as the sum of products of powers of the base number.. transformations from base ten numerals to numerals in other bases...using base ten as an intermediate base in transforming a numeral from a base which is not ten to a different base which is not ten either...."	Series MT4 Colonial Films, Inc. Includes 12 transparencies (MT4-1 to MT4-12), 40 overlays, and a Teachers Guide for each transparency.
G-NUM-4	TP	From Other Bases To Base Ten	Each projectual can be used with the appropriate objective. Content: "Shows grouping of the elements of a set into subsets arriving at numerals naming the number of the set in bases three through nine, and twelve....illustrates transformation of numerals in these bases to equivalent base ten numerals...."	Series MT3 Colonial Films, Inc. Includes 12 transparencies (MT3-1 to MT3-12), 41 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-4	FS	Numeration - Base Five	FS can be used for all 3 objectives. Content: "Using digits in base five numeration....place-holders in base five numeration.... place-value charts; use of the abacus....relationships between base five and base ten....."	"Using Modern Mathematics - Group 5" Series A532-16 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-NUM-5	FS	Numeration - Base Five	FS can be used for all 3 objectives. Content: "Using digits in base five numeration...place-holders in base five numeration.... place-value charts; use of the abacus....relationships between base five and base ten....."	"Using Modern Mathematics - Group 5" Series A532-16 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	TP	From Base Ten To Other Bases	Each projectual can be used with the appropriate objective. Content: "Shows that when a numeral in a base other than ten is to be changed to a base ten numeral, the result is obtained as the sum of products of powers of the base number... transformations from base ten numerals to numerals in other bases....using base ten as an intermediate base in transforming a numeral from a base which is not ten to a different base which is not ten either."	Series MT4 Colonial Films, Inc. Includes 12 transparencies (MT4-1 to MT4-12), 40 overlays, and a Teachers Guide for each transparency..
G-NUM-5	TP	From Other Bases To Base Ten	Each projectual can be used with the appropriate objective. Content: "Shows grouping of the elements of a set into subsets arriving at numerals naming the number of the set in bases three through nine, and twelve...illustrates transformation of numerals in these bases to equivalent base ten numerals....."	Series Mt3 Colonial Films, Inc. Includes 12 transparencies (MT3-1 to MT3-12), 41 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	TP	Modern Math: Hard Spots, Grade 3	Each projectual can be used with the appropriate objective. (Order corresponds to that of projectuals.) Contents: "Number properties and the addition operation; the same properties and the multiplication operation; relation of multiplication and addition processes; operations of subtraction and division; division of 2-and 3-digit numbers; fractions; story problems; base five."	Milliken Publishing Company #TD501 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
G-NUM-5	TP	Modern Math: Hard Spots, Grade 5	Each projectual can be used with the appropriate objectives. (Order corresponds to that of projectuals.) Contents: "Expanded notation; regrouping in subtraction; multiplication and the number line; multiplication involving 3-digit numbers; equations; equivalent fractions; fractional parts of measures; decimal fractions."	Milliken Publishing Company #TD503 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	TP	About Numeration Systems	Several transparencies are review in nature; and may thus be used with previous objectives also. Content: "...."Systems of numeration"... "number," "numeral," "digit"... "one-to-one correspondence"... Egyptian Symbols"...."Roman Numerals"...."subtraction principle".... how to build a "base five" system...need for zero in a base five system....larger groupings in base five system...."Hindu Arabic" System..."standard and expanded forms....changing base ten to base five.... changing base five to base ten...why is place value important?...."	Channing L. Bete Co., Inc. Cat. #704 Contains 15 transparencies and a Teachers Supplementary Booklet, all in a notebook.
G-NUM-5	FS	Numeration - Base Six	FS is related to both these objectives in technique, but on base six (rather than five). Content: "Using digits in base six numeration...place-holders in base six numeration.... relationships between base six and base ten...."	"Using Modern Mathematics - Group 6" Series A532-21 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	FS	Numeration - Binary (Base Two)	FS is related to both these objectives in technique, but on base two (rather than five). Content: "Using digits in binary (base two) numeration.... placeholders in binary (base two) numeration.... relationships between base two and base ten...."	"Using Modern Mathematics - Group 6" Series A532-23 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-NUM-5	FS	Non-Decimal Numerals	A difficult FS, which covers base five through base ten; parts may be irrelevant or too difficult and may be omitted. Content: "General principle for grouping objects for counting; grouping in powers of the base; numerals with bases 2-10, and 21; digits to the right of the "decimal" point in non-decimal numerals."	"Seeing The Use Of Numbers" Series (#186) Set VII - Filmstrip B Eye Gate House, Inc. #186-B Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	FS	Number Base Five	Second half of FS goes into addition and multiplication in base five; may omit this if too difficult. Content: "Changing numbers from one number base to another will help children understand place value in our number system."	"Kenner on Modern Mathematics - Number bases and the decimal system" series - No. 2 Filmstrip House Inc. Narrative on FS; Teachers Guide contains description, suggestions.
G-NUM-5	TP	Number Bases	Binary system as well as base five. Titles: "Introduction to binary: using the binary system; understanding base five."	Instructo Corporation No. 843-A Series of 3 transparencies, with individual sheets of descriptions, suggestions. (843-1 to 843-3) Also various masks, overlays, counting rods, manipulatives.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-5	TP	Modern Mathematics	Each projectual can be used with the appropriate objective. Titles: "Venn diagrams - intersection of sets - without labels ....venn diagrams - intersection of sets - with labels... venn diagrams - sets and subsets - with labels.... venn diagrams - sets and subsets - with labels.... venn diagrams -sets and subsets - without labels... graphing inequalities - with equations.... X and Y coordinates for graphing.... number line (0 to 20).... number lines (-10 to +10).... number bases...."	Projectual kit #5278 John Colburn Associates, Inc. Contains 9 transparencies (with 29 overlays), a correlated book, and a Utilization Guide.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-6	TP	Modern Mathematics	Each projectual can be used with the appropriate objective Titles: "Venn diagrams - intersection of sets - without labels .... venn diagrams - intersection of sets - with labels.... venn diagrams - sets and subsets - with labels.... venn diag ams - sets and subsets - without labels.... graphing inequalities - with equations..... X and Y coordinates for graphing.... number line (0 to 20).... number lines (-10 to +10).... number bases...."	Projectual ktt #5278 John Colburn Associates, Inc. Contains 9 transparencies (with 29 overlays), a correlated book, and a Utilization Guide.
G-NUM-6	FS	Introduction To Signed Numbers	With G-NUM-6, the second half of the FS will be somewhat introductory to the next objective; with G-NUM-7, the first half will be review in nature. Covers: "How opposite values are indicated. What signed numbers are, How signed numbers are used."	Algebra Series A556-3 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-6	FS	Number Line	Although elementary for this level and not including negative nos., FS might provide a good preliminary introduction at this point. Content: "This filmstrip introduces the idea of a number line..."	"Kenner on Modern Mathematics - Part 2" Series No. 2 Filmstrip House, Inc. Narrative on FS' Teachers Guide contains description, suggestions.
G-NUM-6	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
G-NUM-6	FL	Signed Numbers	"Purposes:' To introduce the integers +3, +2, +1, 0, -1, -2, -3. To show that addition of like numerals having opposite signs equals zero."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80083 Encyclopaedia Britannica Educational Corp. No. 20083 (silent); description, suggestions attached

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-7	FS	Introduction To Signed Numbers	With G-NUM-6, the second half of the FS will be somewhat introductory to the next objective; with G-NUM-7, the first half will be review in nature. Covers: "How opposite values are indicated, what signed numbers are, how signed numbers are used."	Algebra Series A556-3 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-NUM-7	FS	Counting Numbers And Directed Numbers	Negative nos. developed here from directed nos. (3, 5, etc.) Content: "Directed numbers tell both direction and distance (number of units) from a reference point. Opposites are introduced."	"Kenner on Modern Mathematics - Rational Numbers" Series - No. 1 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
G-NUM-7	FS	Investigating Negative Numbers	Purposes: "To introduce negative numbers as differences of two whole numbers."	Modern Arithmetic Series - Grades 3 & 4 - Set 2 #405233 McGraw-Hill Text-films Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-NUM-8	FS	Exponents	With F-PV-2, the latter part of the FS may be too advanced and may be omitted; with G-NUM-8, the first part of the FS will be review material. Content: "....What exponents are, how to read them, and how to use them....the posers of 10 in our number system and in scientific notation."	Arithmetic Series Set 3 McGraw-Hill Text films #400533 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
G-PV-1	FS	Number Base Five	Second half of FS goes into addition and multiplication in base five; may omit this if too difficult. Content: "Changing numbers from one number base to another will help children understand place value in our number system."	"Kenner on Modern Mathematics - Number Bases and the Decimal System" Series - No. 2 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-PV-1	TP	From Other Bases To Base Ten	Each projectual can be used with the appropriate objective. Content: "Shows grouping of the elements of a set into subsets arriving at numerals naming the number of the set in bases three through nine, and twelve..... illustrates transformation of numerals in these bases to equivalent base ten numerals.."	Series MT#3 Colonial Films, Inc. Includes 12 transparencies (MT3-1 to MT3-12), 41 overlays, and a Teachers Guide for each transparency.
G-PV-1	FL	System of Two's	Base two - "Purposes: To reinforce the idea that a system of numeration can be considered simply as a way of grouping objects. To demonstrate the use of a place-value chart in the system of vase two. To show that the value of each position in the chart is a power of two; 2, 4, 8, 16, etc. To provide a tool for (a) reviewing the characteristics of the binary system, and (b) converting from base ten to base two."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80085 Encyclopaedia Britannica Educational Corp. No. 20085 (Silent); description, suggestions attached.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-ADD-1	FL	Signed Numbers	"Purposes" To introduce the integers +3, +2, +1, 0, -1, -2, -3. To show that addition of <u>like</u> numerals having <u>opposite</u> signs equals zero."	Elementary mathematics Series Regular 8MM Film Loop No. R-80083 Encyclopaedia Britannica Educational Corp. No. 20083 (silent); description, suggestions attached
G-ADD-2	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals.) Contents; "Number properties and operations; thinking through multiplication and division; division of an integer by a f fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; per cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
G-ADD-2	FS	Operations On Directed Numbers - Part 1	Parts of the FS may be too advanced, and may be omitted or serve as introductory material. Content: "....How to add directed integers. The commutative and associative properties for addition are discussed."	"Kenner on Modern Mathematics - Rational Numbers" Series - No. 2 Filmstrip House, Inc. Narrative on FS; <u>Teachers Guide</u> contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-SUB-1	FS	Operations On Directed Numbers - Part 2	Parts of the FS may seem too advanced, and may be omitted or serve as introductory material. Content: "Review relationship between addition and subtraction. Introduce subtraction of directed integers informally."	"Kenner On Modern Mathematics - Rational Numbers" Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
G-SUB-2	FS	Operations On Directed Numbers - Part 2	Parts of the FS may seem too advanced, and may be omitted or serve as introductory material. Content: "Review relationship between addition and subtraction. Introduce subtraction of directed integers informally."	"Kenner on Modern Mathematics - Rational Numbers" Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-MUL-4	FS	Estimating In Decimals - Multiplication	FS is appropriate for this objective in its treatment of estimation (for decimal point placement, etc.); some of FS may be irrelevant and may be omitted. Content: "....An estimate may be made with 2 numbers...how to estimate the products of whole nos. and fractional nos....a decimal number falling between 2 consecutive whole nos. helps to find upper and lower limit between which the products must be.... estimate products of decimal nos..."	Set F-5: "Operations And Decimals" #1208 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-DIV-4	FS	Dividing With Decimals	With F-DIV-7, the first part of the FS is directly applicable, while the rest can either serve as introductory to G-DIV-4 or may be omitted; with G-DIV-4, the first part of the FS can serve as review material. "Objectives: To teach the child how to divide a decimal by a whole no; to prove that a quotient is unchanged when both divisor & dividend is multiplied by the same no. (thus the importance of moving decimal pts. when dividing); to show that the divisor can be changed to a whole no. by multiplying by 10 or 100 or 1000 (also multiplying the dividend), and how to do so by moving the decimal pt. to the right; to help the child master some zero difficulties."	"Adventures With Numbers" SEries Popular Science Publishing Co., Inc. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-DIV-4	FS	Dividing Decimals	First reviews dividing a decimal by an integer. Content: .....Divides integers. .....Divides a decimal by an integer, remembering to put the decimal point in the quotient first. .....Divides an integer by a decimal and a decimal by a decimal, learning to move the decimal point in the divisor and in the dividend.	"Decimals and Percentage" Series #215 Curriculum Films Narrative on FS.
G-DIV-5	FS	Division Of Decimals	Covers all decimal division situations (decimal divided by whole no., whole no. by decimal, decimal by decimal, etc.), some of which are review. Content: "...Division of a decimal by a whole no....division of a decimal by a decimal.... division of a whole no. by a decimal....division of decimals and whole nos. by 10, 100, and 1000....division of a whole number by a whole number (with quotients that result in decimals)....."	"Using And Understanding Numbers: Decimals and Measurements" Series A538-4 Society for Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-COP-1	TP	Modern Mathematics	Each projectual can be used with the appropriate objective. Titles: "Venn diagrams - intersection of sets - without labels. ....ven diagrams - intersection of sets - with labels.... venn diagrams - sets and subsets - with labels.... venn diagrams - sets and subsets - without labels.... graphing inequalities - with equations.... X and Y coordinates for graphing..... number line (0 to 20).... number lines (-10 to +10)..... number bases...."	Projectual kit #5278 John Colburn Associates, Inc. contains 9 transparencies (with 29 overlays), a correlated book, and a Utilization Guide.
G-COP-1	FS	Modern Mathematics: Number Line - Whole Numbers	FS also reveiws several concepts (add., subtr., mult., div., etc.), using the no. line to develop them. Content: "...Using the no. line to show addition, subtraction, multiplication, and division of whole numbers....symbols: >, <, -5 (neg. no.).... positive and negative numbers.. commutative and associative principles...."	"Using Modern Mathematics - Group 4" Series A532-6 Society for Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-COP-2	FS	The Decimal Number Base	Mostly review in nature, but may provide an appropriate introduction to this objective. Content: "...The relation between decimal whole numbers and decimal fractions...."	"Kenner on Modern Mathematics - Number Bases And The Decimal System" Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teachers Guide contains description, suggestions.
G-COP-3	FS	Dividing Fractions And Mixed Numbers	This is division which is not really part of the objective. The more advanced students may use this filmstrip, however, for it is related but more difficult.	Fraction Series A535-8 Society for Visual Education, Inc. (SVE) Narrative on FS.
G-COP-5	FS	Percentage And Using Money	FS also reviews money, and presents various word problems, both about straight percentage and about money. Some of problems may be too advanced, and thus may be omitted.	Arithmetic Series - Set no. 2 McGraw-Hill Book Co. #400321 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-COP-5	FS	Problems In Percentage	Actually too advanced for this objective, but related; can be used for advanced students perhaps. Content: "....Uses percentage in everyday problems....1/3 of something equals 33 1/3%..... figures the interest his money earns....buys a bond and finds by what percent it increases."	"Decimals And Percentage" Series #218 Curriculum Films Narrative on FS.
G-COP-5	FS	Using Percentage	Content: "...Change percent to hundredths and to a common fraction.... ...how much he saves when he banks 10% of his allowance, and how much he gains when he gets a 20% increase.... ...figures the percent he spends on carfare, shows, etc.....figures the percent of change in his weight and in his wages."	"Decimals and Percentage" Series #217 Curriculum Films Narrative on FS.
G-FRAC-1	FS	Changing Fractions To Decimals	The FS first reviews both fractions and decimals.	"Arithmetic" Series #A-51 Your Lesson Plan Filmstrips Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-1	FS	Changing Fractions To Decimals - Decimals To Fractions	Uses word problems extensively to cover the subject matter. Content: "How to change common fractions to decimals. How to change decimals to common fractions. How we use both common fractions and decimals in everyday situations."	"Using and Understanding Numbers: Decimals and Measurements" Series A538-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-FRAC-2	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays): Related to film and FS Series of same name.
G-FRAC-2	FS	Multiplication Of Fractions	Covers: "Solving the problems which occur in multiplication involving fractions. Multiplying fractions when the multiplier is an integer, a fraction, or a mixed number."	"Understanding Fractions" Series A530-7 Society for Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-3	TP	Building Concepts In Mathematics	The individual transparencies can be used with the appropriate objectives; this set of transparencies has applicability throughout the fractions objectives.	Overhead Projectual Kit #5217 John Colburn Associates, Inc. Contains 43 transparencies (with 128 overlays); Related to film and FS Series' of same name.
G-FRAC-3	TP	Modern Math: Hard Spots, Grade 6	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals.) Contents: "Number properties and operations; thinking through multiplication and division; division of an integer by a fraction; ratio; changing a fraction to a decimal; place value; multiplication of decimals; p r cent."	Milliken Publishing Company #TD504 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.
G-FRAC-3	FS	Multiplication And Division Of Fractions	With F-FRAC-13, FS may also be used to preview division; with G-FRAC-3, the FS first reviews multiplication. Division and multiplication are shown in their close relation and similarity.	"Light on Mathematics - Refresher course" Kit 1- film 6 The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-3	FS	Dividing A Whole Number By A Fraction	"Objectives: To teach the child to divide a whole number by a unit fraction. To teach the child to divide a whole number by a non-unit fraction."	Adventures with Numbers Series Popular Science Publishing Co., Inc. Narrative on FS, But Teaching Guide gives frame-by-frame explanations, suggestions.
G-FRAC-3	F	Dividing Fractions	Content: "...The definitions of complex fraction and reciprocal applied to division of fractions.... the reciprocal principle.... everyday scenes involving division of fractions...."	"Building Concepts In Mathematics" Series 5217-#6 John Colburn Associates, Inc. Related to FS of same name. 16MM - Narrative on soundtrack. Teachers Guide gives description, suggestions.
G-FRAC-3	FS	Dividing Fractions	Content: "...Complex fraction contains a fraction within a fraction.. reciprocal - any two nos. that give a product of one when multiplied together..... dividing fractions - using the reciprocal of the divisor as a multiplier...."	"Building Concepts In Mathematics" Series 5217-#6 John Colburn Associates, Inc. Related to film of same name. Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-3	FS	Division Of Fractional Numbers	FS also introduces concept of reciprocals. Content: "Using fractions to name quotients...meaning and use of reciprocals...dividing a whole no. by a unit fraction and by a non-unit fraction... dividing a fraction by a fraction...meaning and use of complex fractions... dividing a whole no. by a mixed fraction....dividing a mixed fraction by a mixed fraction...."	"Using Modern Mathematics - Group 6" Series A532-17 Society for Visual Education, Inc. (SVE) Narrative on FS.
G-FRAC-3	F	How To Divide Fractions	Content: "Designed to visualize the reasoning which underlies the rule for division by a fraction."	"Elementary General Math" Series #3016 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack.
G-FRAC-3	FS	Introduction: Division By Fractional Numbers	Involves only those problems with a whole no. divided by a fraction; introduces concept of reciprocals. Content: "....Review relationship between multiplication and division...whole no. divided by fractional nos...the term reciprocal is defined...how to use the reciprocal to divide a whole no. by a unit fractional no..."	Set F-13: "Operations And Fractions II" #1239 Popular Science Publishing Co., Inc. Narrative on FS; Teaching Guide gives frame-by-frame description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-3	FS	The Division Of Fractions	FS uses word problems to teach division of fractions. Covers: "How to divide when the dividend or the divisor is a fraction or a mixed number. How the common denominator method and the inversion method are used in such division situations."	"Understanding Fractions" Series A530-8 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-FRAC-3	FS	Quotient Quests	Appropriate subject matter but rather simple treatment.	"Amazing Arithmetic" Series (#73) Eye Gate House, Inc. #73-G Narrative on FS; Teachers Manual gives suggestions.
G-FRAC-5	FS	The Division Of Fractions	FS uses word problems to teach division of fractions. Covers: "How to divide when the dividend or the divisor is a fraction or a mixed number. How the common denominator method and the inversion method are used in such division situations."	"Understanding Fractions" Series A530-8 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-FRAC-5	FS	Working With Fractions	Good review of all fractions operations up to this point.	Arithmetic Series - Set No. 2 McGraw-Hill Book Co. #400323 Narrative on FS; Filmstrip Guide gives frame-by-frame explanations, suggestions.
G-FRAC-5	FS	Changing Fractions To Decimals - Decimals To Fractions	Uses word problems extensively to cover the subject matter. Content: "How to change common fractions to decimals. How to change decimals to common fractions. How we use both common fractions and decimals in everyday situations."	"Using and Understanding Numbers: Decimals And Measurements" Series A538-5 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-FRAC-5	FS	Multiplication Of Fractions	Covers: "Solving the problems which occur in multiplication involving fractions. Multiplying fractions when the multiplier is an integer, a fraction, or a mixed number."	"Understanding Fractions" Series A530-7 Society For Visual Education, Inc. (SVE)

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-GEOM-1	FS	Vocabulary: Polygons	For either objective, certain parts of the FS may not apply, and can be omitted.	"Vocabulary" Series #6 A Curriculum Plane Geometry Film Curriculum Films, Inc. Narrative on FS.
G-GEOM-1	FS	Segments And Polygons	FS reviews and covers more geometry concepts than just that of this objective; parts of FS may be too difficult or irrelevant, and may be omitted; in general, a difficult FS (written on high level, etc.) Content: "Segments as sets of points; polygons as unions of segments; necessary vocabulary; parallelism and perpendicularity as symmetric relations; classification of polygons; rotations and regular polygons."	"Seeing The Use Of Numbers" SEries (#186) Set VII - Filmstrip G Eye Gate House, Inc. #186-G Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions.
G-GEOM-1	FS	Quadrilaterals	Some parts of the FS will be review in nature; also some may be too difficult, and can be omitted. Covers: "What a quadrilateral is, how quadrilaterals are used, and what polygons belong to the quadrilateral family."	Plane Geometry Series A541-5 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-GEOM-3	FS	Basic Angles And Experimental Geometry	Some parts of the FS may be too advanced or irrelevant, and may be onitted. Covers: "How angles are measured, where angles are used, what the different kinds of angles are, and what experinental geometry means."	Plane Geometry Series A541-2 Society for Visual Education, Inc. (SVE) Narrative on FS.
G-GEOM-5	FS	Geometry - Perimeters, Areas, Formulas	FS also reviews several previous geometry concepts; several frames may be too advanced and may be omitted. Content: "Polygons...perimeters of polygons...circles: radius, diameter, circumference.... square units of measure.... areas: rectangle, square, parallelogram, triangle, trapezoid, and circle.... development of formulas.... matching area formulas with regions."	"Using Modern Mathematics - Group 6" Series A532-19 Society For Visual Education, Inc. (SVE) Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-GEOM-6	FS	Geometry - Perimeters, Areas, Formulas	FS also reviews several previous geometry concepts; several frames may be too advanced, and may be omitted. Content: "Polygons...perimeters of polygons...circles: radius, diameter, circumference.... square units of measure.... areas: rectangles, square, parallelogram, triangle, trapezoid, and circles.... development of formulas.... matching area formulas with regions."	"Using Modern Mathematics - Group 6" Series A532-19 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-GEOM-7	FS	Addition And Subtraction In Geometry	More difficult than this objective, but related; might be used for advanced students. Contents: .the arithmetic of measurement. .addition & subtraction of lines. .relationship between lines. . add'n & subtr'n of angles. .rel'nship of angles & lines. .add'n & subtr'n of areas and volume.	"Light On Mathematics - Refresher course" Kit II - Film I The Jam Handy Organization Narrative on FS.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-1	TP	Modern Mathematics	Each projectual can be used with the appropriate objective. Titles: "Venn diagrams - intersection of sets - without labels.... venn diagrams - intersection of sets - with labels.... venn diagrams - sets and subsets - with labels.... venn diagrams - sets and subsets - without labels..... graphing inequalities - with equations..... X and Y coordinates for graphing.... number line (0 to 20)... number lines (-10 to +10)... number bases..."	Projectual Kit #5278 John Colburn Associates, Inc. Contains 9 transparencies (with 29 overlays), a correlated book, and a Utilization Guide.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-1	FS	Graphs - Pictographs, Bar, Line, Number, Pairs, Maps	First half of FS applies to F-S.T.-5; second half to G-S.T.-1. In each case, the inappropriate section may either be omitted or used as review or preview. Content: "Graphs: Pictograph, bar, line, number pairs, maps.... arranging data on a picture graph...developing horizontal and vertical (column) graphs ....organizing and arranging data on a line segment graph... graphing nos. on a line.... graphing no. pairs.... locating places on a map (graph)...."	"Using Modern Mathematics - Group 5" Series A532-11 Society For Visual Education, Inc. (SVE) Narrative on FS.
G-S.T.-2	TP	Modern Math: Hard Spots, Grade 4	Each projectual can be used with the appropriate objective(s). (Order corresponds to that of projectuals.) Contents: "Combining disjoint sets; "carrying" in addition; "borrowing" in subtraction; division operations; multiplication operations; equations and inequalities; common denominators; improper fractions."	Milliken Publishing Company #TD502 Contains 12 transparencies and 28 supplementary pages, bound in a transparency - duplicating book.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-2	TP	Modern Mathematics	Each projectual can be used with the appropriate objective. Titles: "Venn diagrams - intersection of sets - without labels.... venn diagrams - intersection of sets - with labels.... venn diagrams - sets and subsets - with labels..... venn diagrams - sets and subsets - without labels.... graphing inequalities - with equations.... X and Y coordinates for graphing.... number line (0 to 20).... number lines (-10 to +10).... number bases....."	Projectual Kit #5278 John Colburn Associates, Inc. Contains 9 transparencies (with 29 overlays), a correlated book, and a Utilization Guide.
G-S.T.-2	TP	From The Union Of Sets To Addition Of Whole Numbers	Each projectual can be used with the appropriate objective. Content: "Develops the structural properties of addition by showing the application of the commutative, asscciative, identity number, and inverse operation properties to joining of sets and then to addition of whole numbers. Shows the basic addition table base ten and graphically illustrates the structural properties of addition of whole numbers."	Series MT5 Colonial Films, Inc. Includes 15 transparencies (MT5-1 to MT5-15), 50 overlays, and a Teachers Guide for each transparency.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-2	FS	Difference Of Sets And Subtraction Of Numbers	Straight set theory and terminology. Content: "....After viewing the filmstrip, your students should be able to discuss the following subjects: sets, set nembers, the empty set, the mathematical sentence using sets, subtraction of numbers using sets, and difference of sets."	"Using Sets And Numbers" Series - Filmstrip 9
G-S.T.-2	FS	Inequalities - Sets And Numbers	Straight set theory and terminology. Content: "....After viewing the filmstrip, your children should be able to discuss the following topics: sets, set members, the use of braces, the use of sets with N as number names, set equality, set inequality, greater than, less than."	"Using Sets And Numbers" Series - Filmstrip 7 Ginn And Co. & The Jam Handy Organization Narrative on FS; But Teachers' Manual gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-2	TP	Laws And Theorems	Covers distributive, associative, and commutative laws using venn diagrams.	Tecnifax Corporation Cat. No. 84414 Includes 3 projectuals, with various masks and overlays. (01318-01320)
G-S.T.-2	FS	Set Description And The Use Of Braces	Straight set theory and terminology. Content: "....After viewing the filmstrip, your students should be able to dsscuss the following topics: sets, set members, set description with words, set description with braces, set description with capital letters, equal sets, the empty set, and the use of dots to indicate a series."	"Using Sets And Numbers" Series - Filmstrip 5 Ginn And Co. & The Jam Handy Organization Narrative on FS, But Teachers' Manual gives frame-by-frame explanations, suggestions.
G-S.T.-2	FL	Set Game	Although film description says otherwise, this film can be used to teach union and intersection of sets. "Purpose: To provide an opportunity for students to isolate characteristics that determine whether a group of objects is a set."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80079 Encyclopaedia Britannica Educational Corp. No. 20079 (silent); Description, suggestions attached.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-2	FL	Set Relations	"Purposes: To present visual examples of some rules governing the behavior of sets. To provide a means for showing how set theory can be applied to mathematical operations."	Elementary Mathematics Series Regular 8MM Film Loop No. R-80084 Encyclopaedia Britannica Educational Corp. No. 20084 (silent); Description, suggestions attached.
G-S.T.-2	FS	Sets And Numbers In Mathematical Sentences	Straight set theory and terminology. Content: "....After viewing the filmstrip, your students should be able to discuss the following topics: sets, set members, the empty set, the use of braces, the use of sets to name numbers, the number of the empty set, and the use of sets in making mathematical sentences."	"Using Sets And Numbers" Series - filmstrip 6 Ginn And Co. & The Jam Handy Organization Narrative on FS, But Teachers' Manual gives frame-by-frame explanations, suggestions.
G-S.T.-2	F	Sets: Union And Intersection	Content: "Illustrates the operations of union and intersection of sets."	MAA Arithmetic Series Modern Learning Aids (MLA) #3604 16MM - Narrative on Soundtrack.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-2	FS	The Extension of Set And Number Ideas	Straight set theory and terminology. Content: "...After viewing the film-strip, your students should be able to discuss the following topics: sets, set members, equal sets, the empty set, one-to-one correspondence, equivalent sets, the use of braces, the use of sets with N to name numbers, inequalities, union of sets, difference of sets, the mathematical sentence, and operations on numbers named by sets."	"Using Sets And Numbers" Series - Filmstrip 10 Ginn And Co. & The Jam Handy Organization Narrative on FS, But Teachers' Manual gives frame-by-frame explanations, suggestions.
G-S.T.-2	FS	Union Of Sets And Addition Of Numbers	Straight set theory and terminology. Content: "....After viewing the filmstrip, your students should be able to discuss the following topics: sets, set members, the empty set, mathematical sentences using sets, addition of numbers using sets, and the union of sets."	"Using Sets And Numbers" Series - Filmstrip 8 Ginn And Co. & The Jam Handy Organization Narrative on FS, But Teachers' Manual gives frame-by-frame explanations, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-3	FS	Variables And Mathematical Sentences	Also covers simple algebraic inequalities; if too advanced, these can be omitted or serve as introductory material. Content: "In open sentences symbols that can be replaced by numbers are called variables.. a number which makes an open sentence a true numerical sentence is called a truth element....a solution for an open sentence is a set...."	"Kenner On Modern Mathematics - Discovering Algebra" Series - No. 1 Filmstrip House, Inc. Narrative on FS; Teacher's Guide contains description, suggestions.
G-S.T.-3	F	Algebra	This film, which first reviews arithmetic generally, provides an appropriate introduction to algebra at this level. Content: "This is a pre-algebra film which discusses the use of symbols to express and develop mathematical statements of relationships."	"Elementary General Math" Series #3020 Modern Learning Aids (MLA) 16MM - Narrative on soundtrack.
G-S.T.-3	FS	Solving Simple Equations	Content: "....To find equivalent equations - equations with the same solution set - without using formal rules for transformation of equations."	"Kenner On Modern Mathematics - Discovering Algebra" Series - No. 3 Filmstrip House, Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
G-S.T.-4	FS	Using The Mathematics You Know	Not directly related to this objective, but a good motivational FS about the usefulness of mathematics in general problem solving. Content: "Examples of the use of mathematics in non-school situations; a general strategy for problem solving."	"Seeing The Use Of Numbers" Series (#186) Set VII - Filmstrip J Eye Gate House, Inc. #186-J Narrative on FS; Teachers Manual gives frame-by-frame description, suggestions.
G-S.T.-4	FS	Word Problems And Equations	Content: "....Stresses that a given equation can be used for many different word problems and that conditions stated in a word problem can be expressed as conditions of an equation."	"Kenner On Modern Mathematics - Discovering Algebra" Series - No. 4 Filmstrip House, Inc. Narrative on FS; Teachers' Guide contains description, suggestions.

AUDIO-VISUAL MATERIALS

Objectives	Aid	Title	Content	Source
	FS	Elementary Mathematics	Each filmstrip is appropriate for a list of objectives - the entire list too lengthy to list here; however, the vast majority of subjects and levels are represented in the series; also, the vast majority of the frames do fit in somewhere among the objectives.	Filmstrip Kit #3021 (Set of 6) John Colburn Associates, Inc. Contains 6 filmstrips and related book: Mathematics Background For The Primary Teacher. (Text For The Visuals Is In The Book.) Related to TP series of same name.
	TP	Elementary Mathematics	Various transparencies are appropriate for a list of objectives too numerous to list here; however, virtually all subjects and all levels are represented in the series; also, the vast majority of the transparencies do fit in somewhere among the objectives.	Projectual Kit #4021 John Colburn Associates, Inc. Contains 139 transparencies and related book: Mathematics Background for the Primary Teacher. (Text For The Visuals Is In The Book.) Related to FS series of same name.
	TP	Elementary/Jr. Hi Mathematics	The transparencies are appropriate for a list of objectives too numerous to list here; however, virtually all subjects and levels are represented in the set; also, the vast majority of the transparencies do fit in somewhere among the objectives.	Western Publishing Co., Inc. Cat. No. J3-869 (#J9-059 to #J9-133) contains 75 transparencies and a study guide.